THE

Horticulturist,

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

Brown Houses and Lightning Conductors.

THERE are fashions in all things, and so far from underrating the importance of imitation as a means of improvement, we are inclined to value it for all it is worth. Many a man who would never be led to make any progress in mental, moral, or social culture, for the intrinsic value of these things in themselves, is induced to do so because he finds others considering them essential. The powerful, original, inventive minds lead; the merely imitative and dull are content to follow. The misfortune is, that in following, they often lose the spirit, and pertinaciously adhering to the letter, they blunder into errors, sometimes more ludicrous than those they seek to cure.

We are led to these remarks by observing how, when the absurdity of an old idea is pointed out, and it begins to be abandoned by those who think and act first in such matters—those who think and act from some principle—it is often taken up and carried to excess, by those who see or understand no principle at all, but merely adopt it because it is the fashion to do so.

An amusing example of this is the rage now in vogue in New-York, for painting all dwellings of a dingy brown color—"Victoria brown," we believe the painters call it. It so happened, that along with the building of Trinity Church, in New-York, some ten years ago, sprung up quite a new and improved taste in architecture. This grew partly out of the novelty of seeing, for the first time, a really good church built of solid stone, the beautiful details of which were finely executed in the comparatively soft sandstone used in that building, and also from the fact, made manifest by the extensive use of that material, that the beauty resulting from enriched architecture, a thing almost impossible in cold, hard granite, was not only possible, but delightful in a more pliant material. Captivated by the use of a building material in which edifices no longer frowned in the sternness of gray rock, but smiled in the softness of "freestone," granite and bricks were almost abandoned, and churches,

shop-fronts, and private dwellings, with solid-looking façades of this brown stone, have sprung up all over New-York, as if by magic. It is undeniable, that the use of this stone has amazingly improved the character of the buildings, both public and private, that adorn all the newer and better portions of the city; for there can never be any comparison instituted between the expressionless brick walls that formerly made up all of New-York, (and that still make up all of Philadelphia and Baltimore, and the more expressive and architectural effects that have grown up since freestone has come into general use. Architecture, like sculpture, demands *stone* before it can develop and blossom in all its fair proportions—and dull and monotonous as much of the brown sandstone* used in New-York, is, we owe to its greater facility under the chisel, the only just pretension to architectural beauty, that any of our cities have yet made.

So far, it is all very well. There is something real in the color of any stone, and therefore, in a certain degree satisfactory, because it is the natural color—though the stone may be by no means the best one.

But now comes the imitation—the false instead of the real—the paste instead of the diamond. Brown stone houses are the best houses in town—therefore they are the fashion. Now, unfortunately, there are many brick houses that cannot by any conjuror's wand be turned into brown stone. Still, the owner is very unhappy, not to live in a brown stone house—it is such a miserable thing not to be *à la mode*. What is to be done? The house painter is the only man who alone can solve this problem. And he solves it—by *painting* his house "Victoria brown"—i. e., the fashionable dingy brown stone color, (in imitation of our freestone.)

Now, as we think few things uglier than red brick walls, we have no objection to calling in the help of the painter to impart the agreeable impression of a pleasing color, instead of an ugly one—to the otherwise insipid, meagre, brick surface. All that we complain of, is, that any body should be forced to swallow, as a quack medicine to cure all diseases that the optic nerve is heir to, this eternal, dingy "Victoria brown."

The only object of painting the surface, (beyond that of preserving it,) is to please the eye. Why not, therefore, choose a pleasing drab, or a soft, warm gray, or a light mellow fawn, or any one of the many quiet, *neutral tints*, that are as easily mixed in a paint-pot as this dingiest and most melancholy color—the color of dead leaves in autumn? Why not take two or three shades, (only *shades*, not distinct colors,) of the same drab, or gray, and by painting the body of the house one shade, the window-dressings and the cornice another, and the blinds another, give some pleasing variety of expression, (for color alone is capable of doing wonders in this way,) to our otherwise monotonous meagre piles of brick houses? Why not—but it is useless to inquire! The painter, shaking his "Victoria brown" brush at you, stops your mouth with that answer from which, in the opinion of the multitude, there is no appeal, "this is the color, sir, everybody prefers now."

If fashionable Victoria brown is simply an error of taste in town, it is an abomination—a miserable cockneyism in the country. But in the country it has come, (at

* We notice with pleasure, that several of the newer structures in New-York, are of a sandstone of a much lighter shade—the color of which is very handsome.

least everywhere within 300 miles of New-York,) and we, who used to put our eyes out with the everlasting glare of white paint, (with only the vulgar relief of very green blinds)—are now being "done brown"—*Victoria-ized*—(poor innocent republicans as we are)—simply because Trinity Church was built of brown stone, and some ignorant *John Bull* of a house painter took it into his head to daub over all the brick houses in Gotham, as nearly like brown stone as he could make them.

Seriously, we protest against this snuff-colored mixture, with which all our dwellings, good, bad, and indifferent, are likely to be painted out of existence—for "Victoria brown" is a most suicidal, melancholy color. There are, to be sure, many houses so little calculated to awaken any emotion but those of wonder as to how they came to be built—houses that we would like to see deeply dyed of some hue that would render them quite *invisible* to mortal gaze. But others there are, that the eye rests on with delight—beautiful country houses—perhaps modest cottages, with latticed porches half overgrown with the "lush woodbine," or pretty villas, embowered in shrubbery and smooth lawns, or pleasant, rambling farm houses, seated amid blossoming orchards, or, may-hap, stately mansions with park-like meadows, studded with noble groups of that loveliest and most graceful of all American trees, the Weeping Elm; and for all such we implore a respite! We beg all true lovers of good taste to protect these fair homes in the country, from the rude assaults of these Knights of the Brush—these valiant DON QUIXOTES of the VICTORIA BROWN regiment, who go about attacking all that does not wear their color, more desperately and omnipotently than DON QUIXOTE of old did the windmills of La Mancha.

This is the epidemic of New-York. That of New-England has taken a widely different shape. The tendencies of our eastern neighbors always take a more subtle and spiritual direction, and accordingly, we find that while the rural districts of New-York are brown-stone-blind—or rather blind to everything but brown, the country folks down east are equally distracted on the subject of lightning rods!

We have never heard from scientific men, that New-England is a land peculiarly liable to be *struck by lightning*, (rather famous it is, generally, for *strikes* of another sort,) but certainly, any person travelling for the first time through that part of the Union, at the present day, would set it down as a fixed fact, that it was "down east" alone, that SPENCER could have had in his imagination when he was led to say,

> The sky in pieces seeming to be rent
> Throws lightning forth, and hail, and harmful showers.

Why, there is scarcely a house worth five hundred dollars in Connecticut or Massachusetts, which has not, within the last half dozen years, mounted a *chevaux de frieze* of bristling steel conductors, as terrible to the eye of a lover of repose in the country, as the serried ranks of one of Napoleon's invincible hollow squares, presenting innumerable bayonets at all conceivable points of attack, were to his enemies. A new neighbor strolling out for the first time, and encountering one of these domicils armed from top to toe with iron rods, and "presenting arms" at every angle, at the top of every chimney, the turn of every corner, yes, and at intervals of every half dozen feet where along the straight ridge of the roof there are no angles—would he not turn back with

dismay, with all thoughts of seeking hospitality at such a home driven clean out of his head?

We are at a loss to know how our shrewd neighbors of New-England have been persuaded into such a very considerable item of needless expenditure as this same hideous display of lightning conductors on every house must have cost, all over that populous country. We suppose some magician, "cuter" than the "cutest," must have waved his iron rod over them, with some potent spell of incantation, to have produced such an effect on a whole people, where the school-master is so thoroughly abroad as he is there. We have questioned and cross-questioned, and for the life of us, cannot ascertain that any greater damage is sustained in the farm buildings and village dwellings of New-York and Pennsylvania, where one lightning rod answers for a whole building, than in New-England, where it takes 50 or 100 points of the very sharpest description, shooting up into the air in all directions.

We know very well the philosophy of protection which the *savans* have laid down —that only a certain circle beyond the conductor's point of radius, is protected by that point—but, in good truth, it is but very rarely that a dwelling is struck at all—because tall trees standing near and about it, conduct away the fluid first, and any barn with a cupola ventilator, and a single high rod surmounting it, one which may be made most useful and ornamental, would be amply protected.

At any rate, we would as soon have a fire engine, with all its customary accessories of noisy boys, and red flannel shirts, and hoarsely bellowing trumpets, standing perpetually before our front door, because a fire *might* break out once in fifty years, as to have our house skewered and stuck with sharp points in all imaginable directions, because such a misfortune might happen as for the electric fluid to step out of its usual current to pay us a visit. In the town where we live, with a population of 11,000 souls, not one house in five has even one lightning conductor, and we do not remember in the whole of our life, of a single death by lightning, or one house damaged to the extent of one hundred dollars. Certainly, a wise man will not build a good house and neglect a reasonable share of precaution to guard it against possible mischance—but this hysterical nervousness of our good New-England friends, about lightning, is a mania about which they have not the less run "clear daft," than we, in this part of the country, have with that optical abomination, the "Victoria brown" disease.

THE VICTORIA REGIA AT MR. COPE'S.

BY THOMAS MEEHAN, HOLMESBURGH, PA.

Mr. Cope's success with the culture of this most gigantic of water lillies is one of the most satisfactory triumphs of American horticulture. An aquatic whose leaves measure 6 feet across, and that demands a pond under glass twenty or thirty feet across, the water in which must be kept perpetually warm and in motion, is not a plant which one person in a thousand would undertake the culture of, for the first time in the United States,

and succeed. But Mr. COPE not only succeeded more perfectly last summer in growing and blooming the Victoria, in more magnificent proportions than it has ever been grown in the finest private establishments in England, but he has, to our great surprise, succeeded in causing it to bloom superbly all through the winter. So far as we know, this has never been accomplished before, and to the fortunate conjunction of skill displayed at Springdale, and the abundance of light on this side of the Atlantic, the development of this new and most valuable characteristic must be attributed. We commend the following interesting account of the culture at Springdale, by Mr. MEEHAN, to the attention of our readers—who will not fail to notice also the liberal offer of the popular ex-president of the Pennsylvania Horticultural Society. ED.

DEAR SIR—The interest which characterised the flowering of the Victoria in this country, continues unabated. The success which has crowned the efforts of Mr. COPE, and the abundant reward which the plant and its flowers, afford its beholders, are inducing others to attempt its cultivation. It has occurred to me that a few notes on its progress here to the present time, would be interesting, as well as seasonable.

It would not be extravagant to call the beauties of this plant *unsurpassable*. Like the gigantic idea, its leaf-structure originated—the Crystal Palace—it stands among its class alone and unapproachable. Its flower has been compared to a colossal specimen of the night blooming Cereus, (*Cereus grandiflora.*) In certain respects this comparison is just; as in the general appearance of the flower, and its delightful fragrance. But when we proceed to examine each beauty separately, all comparison with any other flower must cease. It is not possible to select one property more than another, the which most to admire. It is everything to be wished for. A Victoria house is a perpetual conservatory, filled with ever-blooming flowers. Since its first flowering, in August, last, this plant has produced on an average, two flowers a week. Up to April first, there have been 58 flowers on the same plant. Nor is this ever-blooming principle one long routine of wearisome monotony, for no two flowers can be said to be exactly alike. At the appearance of every bud there is something to anticipate—some new beauty, as yet unknown, to excite our curiosity, and raise up expectation. When they expand in the evening, they may be of any shade, varying from the purest white to richest cream, till they close in the morning, as if to exhibit the change in their calyx, from a greenish to a crimson hue. Soon after the flower expands a second time, and exhibits the same flower quite metamorphosed—sometimes of the deepest pink—sometimes rich with crimson—and sometimes feathered with crimson and white, as if in playful mimickry of the delicate markings of a prize tulip. It is a strange flower—so grand, yet so accommodating! Promise a flower to a friend; he comes; the bud is only there. He is much disappointed. The occasion was an especial one—a marriage festival, perhaps, not perfect without the presidency of this queen of flowers. He shall at any rate have the bud. It is cut and placed in a box, with a little warm damp moss and a heated brick, and the top covered over. He reaches home, and the box is opened, and a perfectly formed flower lies exposed to view! What can be more magical? Verily, nature in the Victoria, throws the tricks of Monsieur HEBERT, described in your last, far into the shade.

Nor does this ever-blooming, ever-changing property, alone render it so admirable. The odor of its expanding buds, is in itself a treasure. A whole house crowded with blooming Olea fragrans, would not excel one bursting Lilly flower.

In a physiological point of view, the flower is no less interesting. Few plants better show the influence which light has on vegetation. When the plant here was in the most advantageous conditions in this respect, last fall, the leaves averaged about six feet in di-

ameter. About six weeks ago they seemed to have declined to their minimum size—being then three feet eight inches. Now, as the light increases, the leaves exceed four feet. When there is abundance of light the leaves turn up at the edges—in winter they lose this peculiarity—they now seem to be resuming it.

Our plant delights in a water temperature of 85°—below 80° or above 90°, an injurious effect is, at this season, perceptible.

I am informed that in England, they durst not keep the water temperature higher in winter than 60° or 65°. This must be owing to the short supply of light to an English winter. So far, I think, we beat the English cultivators in Victoria growing,—however, in the peaceful competition of horticulture, JOHN BULL will be glad to learn that his brother JONATHAN has gone ahead a second time *on the water*. Our plant ripens its seed perfectly, even in the midst of winter. The seed germinate readily under the same treatment as that given to the parent plant. Plants frequently come up in our tank from self sown seed. One of these, not four months old, recently bloomed in a box six inches deep, eight inches wide, and ten inches long—the box being plunged in the large tank. The leaves were two feet in diameter, and the flower seven inches across. This plant was growing near the water wheel, which may yet be found more useful than some are disposed to admit.

Skillful treatment may overcome the difficulties apparent in out door summer cultivation. I do not consider a very *high* temperature essential,—but, whatever temperature it will grow in, must be maintained with *regularity*. It will evidently flower and grow in a small space; but to realize the full effect of its majestic beauty, good room must be afforded.

Is the plant an annual or a perennial? This has not yet been definitely settled. I should not be surprised to learn that it is one of those plants which are annual in some countries and climates, biennial in others, and yet still in others perennial—one of the same class as the *Ricinus communis* for instance. In England they incline to set it down as a perennial. Our light and climate may advance it more speedily to maturity. An English winter, though it deprives the grower of flowers, may in consequence add to its longevity, and, although it is being classed amongst perennials, only lengthen out for a few months its biennial existence. But all these things have yet to be known.

Mr. COPE has kindly permitted me to state that he will be happy to supply any one forming a tank for the Victoria with a plant for it,—and I should be pleased to give any desired information to those desiring it, as well as to record any future observations in the pages of the Horticulturist, should the editor encourage them.

THOMAS S. MEEHAN.

Holmesburgh, Pa., April 4th, 1852.

ON THE THEORY OF PRUNING—No. 4.

BY L. YOUNG, SPRINGDALE, KY.

Dear Sir—Before closing these numbers by a few short comments upon the several processes of pruning, listed under the head of the second class, I have determined to make a few desultory remarks touching those external evidences, which, in practice, the operator should recognise as indications suggestive of a particular process in its class above others, or as symptoms, which, as violent or gentle in character, are more or less abiding, of delay in the application of the knife.

However much the success of the unskilful and of the negligent, may seem at war with such a proposition, still I hold it to be true, that every stroke of the knife, every rubbing off of a leaf or bud, exerts its influence for evil or for good, and that he who prunes without object, or who, attempting to accomplish some design, is not assured that the cut he is making will accomplish such design, is employed in an exercise quite as likely to result in mischief, as in advantage. French philosophy and French skill, have brought a knowledge of those rules of practice to a high degree of advancement, in so much that many of their specimen trees, viewed as artistic productions, excite the admiration of all beholders. It is a source of surprise to witness with what passive obedience they submit to be moulded into form, by the will of the trainer, and how, at the same time, the operator can exercise such rigid constraint over the form of his trees, and yet preserve their general health.

Here, however, is a fundamental rule of the French school, endorsed by high Anglo-Saxon authority, which if not a paradox, is certainly to be received as true in a much more limited sense than that set forth in the books—it is this, that "*in all trees, and under whatsoever form*, the branches of the most vigorous parts should be cut short, and those of the weak parts long," in order that the greater surface of leaves produced by the numerous buds of the weaker branches may attract more sap, and thus produce a more vigorous growth! This, it will be perceived from the reasoning, is a winter or spring operation. In about the year 1840, I recollect seeing a lot of pear trees headed back—whilst at the same time their roots were treated with a dressing of manure well spaded in. This treatment was applied as a remedy for feebleness of habit, the result of over production, and at the end of five or six years the amputated trees had grown larger than when headed back. One of them, a Red Bergamot, had, indeed, become barren from over luxuriance; here and there, only a branch was seen, sufficiently fruitful, so that here, if ever, one would have thought, was a case for the application of this French rule. Abundant space around several of these branches, was formed by cutting out the neighboring parts, and the whole system of buds left to the feeble branches, with free space for enlargement. At the end of two years, however, the bearing branches remained stationary, whilst the vacated space was re-filled with shoots more nursery-like and unproductive than those removed. I believe, as has been stated in a former number, that whenever fruit-buds have acquired control of the sap, by seizing upon the extremities, which are commanding points in the system of circulation, that shortening-in is the only means of restoring the wood system to active development—and that in this case, and at this season of the year, which is the season of rest, the proper remedies were shortening-in for the feeble branches, and bending down for the too vigorous. For the same reason, that is, its tendency to cripple the energies of the wood system, I cannot but dissent from the implied doctrine of the books, that bearing its crops "principally at the extremities of the branches" is one of

the healthy habits of the fruit tree. Without attempting a scientific classification, I think trees and plants cultivated for their fruits, would admit of a rude division into three classes, viz: First, those which develop the bloom with or without an attendant system of leaves, before the bursting and growth of the wood-buds. Second, those performing the wood growth of the season before the development and expansion of the bloom, and third, those bearing fruit upon branches of the current year, which branches continue to elongate after the bloom has been developed. The Quince and the Orange are examples of the second class. In these cases it would seem but maternal kindness on the part of nature, to instal these fruitlets into the most favorable position, having to contend, as they do, for subsistence, even in infancy, with the fully developed leaves of the wood system. In these instances, however, in which nature herself dispossesses the wood system, she restores the possession on the ripening of the fruit, by a sort of shortening-in. In the first class, embracing the apple, pear, and many others, there exists no adequate necessity for giving to the fruitlet the same "*vantage ground.*" The fruits setting before the development of the leaves and branches of the wood system, they begin to draw upon the circulation for subsistence, and are not only capable of competing for a share of the sap, but in excessive crops entirely suspend the wood growth; again, it is hardly reasonable to infer that nature designed this as their normal position, since she has not provided for the contingency of keeping up a supply of wood in those parts, by restoring the extremities to the possession of the wood system at the end of each crop, as in case of the Quince. But, on the other hand, the apple, and some others, bear their fruit in terminal clusters, the center of which are buds, which buds will continue to point the extremity of the branches with additional fruit buds, until removed by accident or the knife, or until the branch itself shall perish from loss of wood.

In the third class, the Pecan and Chestnut, among trees, also the vine and melon among plants, might be enumerated. It is a well known fact, that the Pecan and Chestnut, under cultivation, produce abortive fruits for many years before they come into successful bearing, if the annual growth continue vigorous and luxuriant. So too, every body does, or may know, that if a single cluster each, of grapes, be permitted to grow upon two branches of equal vigor, upon any vine, and if one of those branches, being headed back to within one or two joints of the cluster, is kept free from suckers, whilst the other is left to grow at will, making a length of ten, fifteen, or even twenty feet, that at the season of maturity the long branch will have diminutive berries, some shriveled, some ripe, some green—whilst the amputated branch will bear a broad-shouldered cluster, with berries, each one of which has pressed his neighbor so sorely for space to expand, that all have lost their rotundity.

To me it seems hardly to admit of a doubt, that failure in both these cases is attributable to the power of the wood-bud system, in a state of active growth, to starve out infant fruits, over which it has the advantage in position, as it always has when located at the ends of the branches.

I think the following experiment will tend to show that when even annuals display similar habits, the same general laws prevail. Some years ago I witnessed an experiment of an amateur cultivator in growing the watermelon. Having made a very early planting upon a small square in a village garden, in consequence of inclement weather, but four plants vegetated. Somewhat resolute in temperament, and impatient of defeat, he determined to try by extra culture, and the appliance of all the expedients of the cultivator's art, to raise a crop from these plants, which were over twenty feet apart. The branches were constrained to take such directions as to cover the whole space, and in order to keep

their vigor unimpaired until the whole space was covered, the fruit-bearing force was kept in abeyance by removing the embryo fruitlets as soon as visible. The cultivator, however, soon discovered, that even within the comparatively placid waters through which the humble tiller of the soil passes in the voyage of life, a Scylla not unfrequently has its corresponding Charybdis; for the very means adopted to enable these plants to avoid a short coming of the ability to cover so much space, drove them into that habit of over-luxuriance which generally swallows up the fruit-bearing force. Many of the leading branches attained the size of a man's thumb, and I recollect some roots exceeded thirteen feet in length, beside the filamentose spongiole, too delicate to be gotten up entire. It is the after treatment in this case, which I think suggestive of principle and instruction—which was, to prune the vines much after the fashion of the grape crop, removing unnecessary laterals, and after allowing only two fruits to the largest branches, to prune off the leading shoot a few joints beyond the last fruit, whilst the fruits were quite young. The result was, an average yield to each plant, of between thirty and thirty-five fruits, of fair size and good quality, a yield by many thought remarkable.

Appertaining to this third class, there is a "vexed question," about which a few suggestions may not be inappropriate, which is this—"what is the proper time for heading back these leading shoots, when the design of the operator is to benefit the fruit crop?" According to some authorities, it would seem quite immaterial, since they direct amputation "when the branches become inconveniently long." Most authors fix upon a date subsequent to the "*setting of the fruit*," and but a single writer within the limits of my reading, has spoken of a date "anterior to the expansion of the bloom." It appears to me, if external symptoms are to be consulted by the operator for his guidance, that the degree of luxuriance indicated by the wood growth, during the first few days after the embryo fruits become visible, should be regarded as the measure, both of the necessity of amputation, and of the danger of delaying the process; and that in a case where the wood growth was so rapid as to form a branch eight to ten feet in length ere the expansion of the bloom, amputation delayed to that period, would be pregnant with greater danger to the fruit crop, than entire omission of the process in a case of feeble wood growth.

L. YOUNG.

Louisville, Ky., March, 1852.

HORTICULTURAL NOTES FROM MICHIGAN.

BY WM. ADAIR, DETROIT.

A. J. DOWNING, Esq.—Dear Sir: Your correspondent, Mr. LEWIS F. ALLEN, in the March number of the Horticulturist, says "he would give a trifle to know if the old French Pear trees on the Detroit river were ever struck with the blight," and complains very justly, that cultivators in this quarter are so dilatory in giving the results of their experience. Being far more familiar with the horticultural implements than the pen, it is with some degree of diffidence that I say any thing on the subject, when there are so many much more competent to do it justice.

In this vicinity there is nothing of the blight known, and we are told that "where ignorance is bliss, 'twere folly to be wise." The old Pear trees line the banks of the river for several miles, both above and below the city, and are still as healthy and vigorous as the native trees in the forest; and notwithstanding their immense size, being fifty or sixty feet high, and from two to three feet in diameter, they are sound and solid to the heart,

bearing regularly and well. *One hundred and twenty bushels have been gathered from a single tree in a season.* The fruit is not of the first quality, still it is very good, where there is little better to be had, and sells readily from four to six shillings per bushel. It more nearly resembles the Early Crawford, [Catherine? Ed.] than any other variety with which I am acquainted, and there is but very little difference in the quality of the fruit, among the old Pear trees around Detroit.

It is worthy of notice, that all the old and magnificent specimens of the pear tree, that have attracted so much attention among horticulturists, stand near the bank of the river, so that their situation is never wet, although the soil is very retentive of moisture, (being mostly a heavy black loam, from nine inches to a foot deep, with a stiff yellow clay subsoil.) Perhaps this may be accounted for by the settlers at that early period, locating on the immediate banks of the river, which is evident from the shape of the farms, being only narrow strips, about eighty rods wide, and running back three miles, all considering it important to have a front on the river. By such an arrangement, each would have their fishing ground, and would also be better able to protect themselves from any incursion of the Indians.

Although the predominating soil is a stiff clay loam, still I have never seen so much diversity of soil in so short a distance, as there is to be found in the immediate vicinity of Detroit. At some period of the world's history, it was probably all submerged by the waters of the lakes.

I have grafted many of the leading varieties of the Pear on some of the old trees that stand on my place, and all seem to grow as vigorously as the original trees themselves; (they have not yet been grafted long enough to show specimens of the fruit,) viz: Onondaga, Angouleme, Bartlett, Virgalieu, Beurre Diel, Bloodgood, &c. This brings to mind an anecdote that occurred in connexion with these pear trees. A Scotch friend came to visit me at the season when the fruit was at maturity. Wishing to test their qualities, he climbed the tree to assist himself, during which time he had been examing some of my labels, which were, perhaps, not very legible to him; when he came down he accosted me with—"*queer peêrs,*" them; there is one marked the *Vera Diel*, an' anather *Bloodygood*, an' I couldna' read the rest." After a laugh, I told him that he had not read the names quite correctly.

I have noticed a disease in Pear trees brought from the east, which is, perhaps, the blight, and which may throw some light on the subject. When Pear, Peach, Apricot, Nectarine, and heart Cherry trees, are received in the fall, it is my invariable practice, to plant them away in a cellar till spring, thus preventing all possibility of their being winter killed; and this, too, would surely prevent the *frozen sap blight*. During summer the diseased specimens begin to show a yellowish, sickly appearance in the leaves; by degrees the tree is completely denuded of its foliage, black spots begin to exhibit themselves on the branches and trunk of the tree; finally the bark shrivels, vitality being longest retained immediately around the buds—this being the case sometimes, even throughout the winter, the roots and stocks being still apparently fresh. Is this the blight? I have never observed this disease after the trees have grown one season, without the aforesaid symptoms; may we not infer from this, that the malady was in the tree before it was received?

The winter with us, has been very severe—on the night of January 19, at 11 o'clock, my thermometer indicated 17° below zero. Many of the Bourbon and Remontant roses are killed down to the snow line. The beautiful new shrubs, *Spirea prunifolia*, and *Wigelia rosea*, have stood it bravely—not a particle of the wood is killed; this is certainly an excellent quality, as they are the most beautiful of the new shrubs that I have seen.

The Peach trees have also stood it well; the young wood was fully matured in the fall, so that not a particle of it is killed. In examining the fruit buds, I find that many of them exhibit the black speck in the heart; still they are not all killed, and if they are not more than half destroyed, it is rather beneficial than otherwise, as the tentendy of the Peach with us, is notoriously to over-bearing, and this saves thinning out.

Now this seems rather to combat your theory of the crop being destroyed when the thermometer reaches 12° below zero; under certain circumstances this may be the case, but that such is not the case under all circumstances, I am confident. During the winter of 1849, my thermometer indicated 18° below zero. This was shown by two different instruments, one of London, the other of Philadelphia manufacture; they hung side by side, so that there could be no mistake. Many prophecied that there would be no peaches next season; the season, however, showed a different result, for we were rewarded with an excellent crop. Respectfully yours, WM. ADAIR.

Detroit. March, 1852

CRITIQUE ON THE MARCH HORTICULTURIST.

BY JEFFREYS.

The Beautiful in Ground.—"Paint me as I am—warts and all!" said stern old OLIVER CROMWELL to the artist who was taking his portrait. It is the strangest thing in the world, when God has made a spot—and made it right—that men should want to spend a small mint of money to pervert nature, and twist it into other shapes, merely to show that they *can* do it. Why, anybody can mark out a chess-board, or build a flight of steps, with earth, as well as with timber, although he may call one a rectangular lawn or garden, and the other a line of terraces.

There is hardly a spot of earth of any magnitude, but what has a character of its own—an expression, suitable, in the hands of a *sensible* man, to make it agreeable and pleasant. Then why not be content with its *natural* capabilities, which, when only "slicked up," gives it its own peculiar beauty, beyond all the expense and conventional expression which spade, plough, or shovel, will add to it? The last paragraph of the article in question, is living perpetual, truth.

The Sage Grape again.—This is a free country, and if folks prefer these hard-pulped, musket-ball grapes, why let them enjoy them, in all conscience. The more you tell a man that his taste is bad, the more sure he is that yourself, not he, is mistaken. Hudibras was right:

"Convince a man against his *will*,
He's of the same opinion still."

The world is wide enough for all sorts of grapes—the Sage among them. I shall not, however, send for it.

Cropping Vines under Glass.—I have the more confidence in this article, because Mr. CLEVELAND grows his *own* grapes, instead of growing them for others. The profesional gardeners are good men, many of them; but I have found a majority of them so opinionated, that they are troublesome. A cultivator of the soil, and a horticulturist, educated *abroad*, to be successful in *this* country, must be *caught young*. It is no proof, because a thing, or the mode of doing a thing, succeeds abroad, that it will equally succeed in America, with such a difference of climates and soils. There can be no more question that a

plant should be in some degree of maturity before its bearing properties are heavily taxed, than that the animal creation should not be over-burthened when young.

All *growing* things have their periods of infancy, maturity, and decay. The grand desideratum is to understand their true nature, and treat them accordingly.

Vegetable Physiology, &c.—Mr. BARRY I believe to be right in *principle*, and I trust he will be able to introduce the *general practice* to accord with such principle. But he'll have a hard time of it. Take us Americans, "by and large," we prefer the "hop-skip-and-jump" mode of doing things—in the pruning line, particularly.

Why won't Mr. BARRY write a distinct, practical, familiar, *understandable* treatise on this subject? It would certainly be an acquisition to our Pomological books, of which we have several good ones. Still no treatise, be it ever so good, and ever so plain, will direct the workman in *all* things, unless he be well grounded by study and observation, in the theory of the particular fruit on which he works. The *principle* on which the plant grows, blooms, and bears; its habits; the soil on which it stands—all must be consulted. Dear me! after a cart-load of reading, how little one knows of this subject when he sets himself to work in the orchard. It is the work of a life almost, to do these things successfully.

The Progressive Decline of the Vital Powers of a Plant.—Mr. TOWNLEY is given somewhat to speculation in this, and a previous article, on the Decline of Fruits; and he certainly manages his subject with much ingenuity. I don't say that he is not right; but I am not yet convinced of it. Diseases, and various circumstances, affect plants, and varieties of plants. The potato is probably the best subject to illustrate his theory, but not at all conclusive. One great difficulty in arriving at the truth of the theory, is from the absence of data to govern the origin of the varieties of the plants or fruits, in question; and until he produces some reliable *fact* of the kind, I fancy he will be slow to find believers to the extent of his speculations. I admit this last assertion is no *proof* that he is wrong. Every great discoverer of a new thing, or a new *principle*—very different, however, from a new *theory*—has had the misfortune to combat prejudice, and ignorance; *theories* are infinitely harder than facts to surmount, unless they be fortified by illustrations conclusive and irrefragible.

Notes on Pears.—Mr. ALLEN looks on the dark side of the picture. Still he may be partially right. Let us compute the number of Pear trees advertised by the different nurserymen in this March number of the Horticulturist:

Daniel Brinkerhoof of Fishkill, has 20,000, of over 100 varieties.

William R. Prince & Co., of Flushing, have "8,000 very large," besides an *immense* number of all sizes; and as Mr. Prince does things on a great scale, we may safely set him down at 100,000 altogether.

A. Saul & Co., of Newburgh, have over 50,000 *saleable* trees, besides an equal number, as we may infer, of *smaller* ones.

Hovey & Co., of Boston, have 80,000 trees of *all* the *popular* varieties, to say nothing of the *un*popular ones.

Here are 250,000 pear trees advertised by four nurserymen. Then there are fourteen other advertisements of as many different nurserymen, who may average 20,000 each, making 280,000 trees more; in all, upwards of half a million of trees produced by eighteen leading nurseries. This amount may be safely multiplied by four, for nurseries not represented, and we have the snug number of two millions of pear trees now on sale fit for planting! One half of them, if sold, may be safely estimated as lost by casualty, in which may be included losses in planting, blight, and destruction from other causes. Thus,

are a million of trees to be planted, among probably a hundred thousand planters—certainly not a large number when so widely distributed.

This is simply *statistics;* and probably loose, and underated at that. So we see, that with all the pear plantations, we are not likely to be overstocked with fruit of this kind for many years. Go on, gentlemen pear-growers. Like our first parents, when driven from Eden, the wide world is before you, where to choose; and if you should, perchance, be like to overstock the country, the blight and other troubles will be sure to relieve your solicitude. The pear is too delicious a fruit to be free from deadly maladies, like the apple; and the full luxury of its bounties is not to be enjoyed without "much tribulation."

Mr. A.'s "dozen varieties" may answer the purposes of some people, but I fancy few pear growers will be content with such meager limits. "Variety is the spice of life," and all the infinity of *new* varieties in pears will be tried, whether they have any "spice" in them, or not, beyond the pungency of paying for a *fancy* article.

The fate of his "Orange Pear" is not alone in the annals of pomological experience. Among them he may find many parallels in the want of public appreciation of one's favorites, and possibly now and then a man who may have mentally recited the blubbering lamentation of the boy, in companionship with Mr. A.'s non-classical extract:

"I never had *a piece of toast*
Particularly good and wide,
But fell upon the *sanded* floor,
And *always* on the *buttered* side."

What will the Edifice cost?—A very pertinent question, to which I never yet knew an architect, or a builder, to give a correct answer. No one can read this extract without a conviction that Mr. COUSIN understands what he is writing about. Half of the misery which arises from ambitious building, comes by underestimating the expense. If a rich man applies to an architect, or builder, to furnish him a plan and estimates, in some cases —depending on the character of the said architect or builder—he will get a correct one. In other cases, the applicant himself—*screwing a bargain*, as if buying a lot of unsaleable goods,—insists upon the gratification of all his wants and all his fancies, and beats down the price in everything to a degree of absolute meanness. His contractor, knowing his man, goes to work. The employer, finding, in the progress of things, that he is to have but a miserable clap-trap affair, or to get a good house, must pay for it, and his feelings and pride already enlisted in it,—or, worse than all, an insisting, persevering wife and daughters at his back—I dislike to say a harsh thing of the gentler sex, but they sometimes have the gift of *persuasion* to an eminent degree,—after an agony of hesitation, lets loose the purse strings, and a riotous expenditure is the consequence. His troubles are now perpetual, and at the conclusion, the question of what it *has* cost will never be out of his mind. A successful man, who considers himself "cute" in his bargains, is apt to think, when looking at his neighbor's house, which has cost him five, ten, or twenty thousand dollars, as the case may be, that *he* by his own more adroit management may build one equally good for half or two-thirds the money, not thinking that this matter of house-building is out of *his* line. And so proceeds in the manner aboved stated.

There are two or three principles of action connected with building, in which every man about to build should be strongly fortified. First of all, he should know how much money he is willing to spend. Next, he should ascertain what sort of a structure, or structures, of a suitable kind, he can get for his money. Then, adopt a plan that will be *complete* within the amount of his appropriation, with twenty-five to thirty-three per cent added to the builder's estimate. And, lastly, *not to be in a hurry.*

These remarks, however, are in but a partial allusion to Mr. COUSIN'S article, which is full of sound sense, observation, and fine taste. Churches, and other public buildings, got up by corporations, associations, and other congregated bodies, are to be governed by different considerations in their cost, as they are often designed in given styles and for particular uses, which should be fully carried out, or let alone altogether. A tawdry affectation of a fine thing, is the sheerest folly imaginable.

Frontispiece—Design for a Free School.—"LA'-DIES, *hand* gentle'm: the play which I 'ave the *'oner* to produce this hevening, is the celebrated Tragedy of 'Amlet. But, as the unrivalled *hactor* who was to appear before you in the character of 'Amlet, has been taken suddenly *hill*, the play will proceed with the part of 'Amlet *left out!*" Thus declaimed the unfortunate strolling manager before his village audience, in a calamitous dilemma. In like manner, the "Design" is here left out! When that appears, we'll talk about the school house.

New and Valuable American Grape.—I have heard of a good many such fruits. *New*, no doubt; but of the rest, the less said, the better. "Perfectly hardy in Massachusetts." Good; for Massachusetts is a cold country. "Free from mildew." Still better. "And ripens before the Isabella or Diana." Capital! Now, let us know how the grape *tastes;* and if it be as good as the "Rose Chasselas," it will answer to give a certificate in its favor. It must, however, be a good deal *better* than the Diana, to merit that—for this latter grape is a very *common* thing to *look* at, and inferior to the Isabella in flavor. When any man can produce a *native* "American Grape," which has the fine flavor, and soft pulp of the Isabella in the latitude of Long-Island, with its vigorous growth and prolific bearing; or of the delicious aroma, productiveness, and vigor of the Catawba, at Cincinnati; and the said "American" grape will ripen freely in latitude 43° north, that man ought to make a fortune out of it; and he probably will do so, if he possess foresight enough to produce, ten, twenty, or a hundred thousand plants fit for sale simultaneously, when startling the country with the intelligence, and giving the proof of its excellence! I hope your correspondent is correct in his announcement.

The past Severe Winter.—Walking up street the other day, I met "the oldest inhabitant," and being some years acquainted with him, we had a long talk "about the weather." As the past winter has been the most severe of any in my own recollection, I taxed his memory for its equal. He could name only the winter of 1810–11. My remembrance fell back to that rigorous winter, then a small boy in this city of New-York; and although I was then perfectly innocent of "degrees of Fahrenheit," I well recollected how, with a thousand other little shavers, all bundled in great coat and mittens, and ears bound in tippets, we turned out to *slide*, among the larger boys who skated on the "Collect," where the "Bastile" now stands in Centre street; and also heard our father complain of the high price of wood—coal was not much burned in New-York then—and that the corporation bought up several thousand dollars worth of hewn building timber at the lumber-yards as fuel for the poor, as the wood sloops could not approach the city, for the ice.

Still, I cannot altogether concur with Mr. BUIST in his fears of the destruction of our trees by the frost. "God tempers the wind to the shorn lamb." And although the cold has been extreme, it has been steady. An uncommon degree of cloudy weather has accompanied the cold, which has shut off the rays of the sun—frequently more destructive in its effects, with much less frost, than we have now had. The peach, and some other tender buds, may have suffered. Yet I think with all hardy fruits, there will be found less destruction than in some comparatively mild winters. So far as my own observation has occurred, the young wood of our fruit trees is sound and healthy. The growth of last

year was well ripened, and thus prepared for almost any degree of cold. The Osage Orange, which has stood in my grounds many years, is perfectly fresh and sound to the terminal bud of its last season's growth. In some mild winters, with the thermometer not falling lower thad 6° above zero, it has been killed back twelve inches of its previous season's growth. This is esteemed rather a tender tree in our latitude.

The exceeding heat of the first half of last September, gave uncommon ripeness to the young wood, and on examination, it will probably be found that, although the winter has been rigorous almost beyond precedent in modern times, with that wise superintendence of a kind Providence, which so mercifully governs the physical world, our vegetation will come out as vigorous and fruitful as when it has scarcely been scathed by the frosts of winter. Early in March, however, the winter broke through, and spring came out in its accustomed joyousness. The Song-Sparrow, the Blue-bird, the Robin, and the red-winged Blackbird, appeared among us with their welcome songs, and but for a timely check of a few cold days, and a snow-storm about the 20th, as usual, we might have suffered more by the untimely warmth of an early spring, than by the exceeding cold of the winter. If I may venture a prediction, the year 1852 will prove one of uncommon fruitfulness.

JEFFREYS.

NOTE.—In Critique on February number, inserted in April, page 175, read Genoa, for "Geneva," and showmen for "shoemakers." I could not be guilty of slandering a worthy class of our mechanics, in such a scurvy category as was there enumerated. J.

THE ORANGE PEAR—ONCE MORE.

BY L. F. ALLEN, BLACK-ROCK, N. Y.

I have read the communication of Col. HODGE, in the last Horticulturist, and am under obligation to him for its history—*in Buffalo*. As to the rest of the matter, touching its merits, he is partly facetious, partly laudatory, and the remainder altogether at loose ends. Setting aside the *immaterial*, (I perceive the Col. is somewhat of a lawyer, as well as pomologist,) part of his communication, which is quite well, I shall only notice what he remarks of the pear in question, and will hold him *to the point*, exactly.

I said that the Orange Pear is a thrifty grower, very hardy, and bears *large* crops *every* year. In these qualities he agrees with me. I also say, that its valuable qualities are "for preserving and baking," and in these it is eminently good, or the best that I have known. In these last qualities, Col. HODGE takes issue with me. Now, what does he say in reply? Why, he plays the attorney, goes into a process of special pleading, and *pettifogs* the case, without any rebutting testimony whatever. He quotes me as saying that it "absorbs sugar perfectly," as I did say; to which he adds "and abundantly," which I *did not* say. He also asserts that its flesh is "dry," which I did say, and "yellow," which I did not say. On the contrary, its flesh is a delicate white—as white a fleshed pear as any other. I said the *color of the pear*, (and by this any one would know I meant the *outside* color, if he will refer to my description,) "is that of a rich lemon." He accuses me, in his self-instituted trial, of being a "partial presiding judge, on *ex-parte* testimony," in which I am an "interested party." Very well; what has he to rebut this "testimony," and "charge?" Why, nothing that is either evidence—or inference, even. Did he ever preserve the fruit—or bake it, to test its qualities? He quotes the action of

the Pomological Convention, and states what was *not* the fact—that I introduced a "dish of preserves," meaning, I presume, "preserved pears." The pears which I introduced, were not "preserved," but "baked," which several of the Convention tasted, and pronounced "*good—very good.*"

He also compares it to the "Morello Cherry," and says that "he can cheerfully subscribe to most of the good qualities given to it by Mr. A." Then why damn the pear with faint praise and ridicule, as he afterwards does?

Another thing Col. HODGE ought to know—as a pomologist; and that is, that our best table fruits, are seldom our best cooking and preserving fruits. The Morello Cherry is one in point. Although an indifferent table fruit in the raw state, its peculiar valuable qualities are developed only by cooking. Look at the books, where the acid and Morello cherries are the most approved for cooking and preserving. So it is with apples, for drying, cooking, and cider. The heaviest *musted* apples, like the Harrison, Carpfield, the Crabs, Red Streak, &c., are all indifferent eating apples, but the best of all for cider. So for baking. The best table apples are far inferior to the Lyman's Pumpkin Sweet, a green, hard, astringent fruit, not fit to eat raw, but probably the most luscious baking apple we have. So with the Talman Sweeting, which, although a fair table fruit, is infinitely better baked, and aside from the Pumpkin Sweeting, hardly has its equal. And why should it not be so with the Orange Pear, an *astringent* fruit? Its quality is not developed without fire to bring it out, and burst its *raw* astringency. *Melting* pears—the best eating varieties—are not good for preserving or baking. Their fine juices are dissolved in the *ripening* process, and cooking only *dissipates* the juices, instead of *developing* them, and they run off, leaving the flesh flaccid and tasteless, instead of retaining them within the flesh, and perfecting them, as with the others. I have tried the melting pears for baking and preserving, by the side of the Orange Pear, and know their inferiority. I very much doubt whether Col. HODGE has ever done as much.

To *test* this matter, I will make a proposition: Col. HODGE may take any of the *melting* pears of the best table quality, like the Virgalieu, Seckel, Louise Bonne de Jersey or Bartlett, and preseve them, weighing alike, his pears and *white* sugar—and nothing else shall be used, except water; and I will take the Orange Pear, observing the like directions, and the preserves made from them, shall be placed without designation, on the fruit tables of the State Agricultural Society, at their annual meeting next February, in Albany, and submitted to the examination of a competent committee, appointed by the Society; and if the melting pears then, and there, considering the quantity of sugar used, shall excel the Orange, I will surrender at once; but until then, I shall maintain the integrity of the Orange Pear, which he has so ungratefully cast off, against all the *inference* he may bring against it.

A word only, as to the *ipse dixit* of these fruit Conventions. They have done much good, and I hope they will continue their proceedings. With the fruits *in season* before them, and those with which they are all well acquainted, if not present, and in season, their opinions and decisions are valuable; but with a *new* fruit, of peculiar qualities, as in the case of the Orange Pear, time, calm consideration, and *trial* is necessary to decide its merits. The mere *say-so* of one or two partial or interested parties, should not govern, and when decisions are so made, they are entitled to little weight. The Brown Beurre, quoted by Col. HODGE, is in point. I had tried the pear then only one year, and knew little about it. It had not then done well with me; I wanted to condemn it—and so did friend HODGE, with the rest of the "Doctors." It is an old adage, that wise men *may* change their minds; fools *never* do. I hope neither of us are in the latter category.

As Col. HODGE has incidentally mentioned it, let me say a word about the

PORTER APPLE.—It has borne with me only two or three years, on young trees. Yet so far, I think it *the very best* cooking apple of its season, say from early in September to the middle of November. It is a fair, and rich table apple, but rather tart to my taste, as I am not partial to tart fruits. It will cook in almost any way—either bake, stew, or fry, in a very few minutes. It is, besides, of good size, large, fair, uniform, well distributed on the tree, and bears most abundantly. As a desirable house-keeping, and market apple, its equal is seldom to be found. I shall cultivate it largely. The tree grows vigorously, the wood is strong, and the tree has a finely spreading top. In fact, I have yet seen no objection to it in any particular, of wood or fruit. LEWIS F. ALLEN.

Black-Rock, April, 1852.

WARMING AND VENTILATING HOUSES.

BY A. D. G., CLINTON, N. Y.

I have read your various articles upon heating and ventilating houses, with much interest. And this, partly because of the great general importance of the subject, but especially, because of its connection with my own health and comfort. A pulmonary affection has driven me for two winters past, to the South, in search of a milder and purer air than, with our present modes of arranging houses, could be found at the North. In your work on Country Houses, you concede, if I remember rightly, that the best modes now practiced for securing a warm and wholesome air in our homes in winter, are most expensive, and not likely to be adopted by persons of moderate income. If any plan can be contrived, suitable for general use, it would certainly be a great public benefit. Profiting by some of your own suggestions, allow me to propose a plan which may lead towards such a result.

For the month of October, November and April, open fire-places, with Arnott's chimney-valve, in every room, will answer all needful purposes. But when December's blasts begin to blow, place your stove in any convenient part of the room, enclose it in a tasteful Russia iron case, leaving a space between the two on all sides, of six or eight inches. Let a door be made in the sheet iron case, corresponding to the door of the inner stove, only somewhat larger, to facilitate putting in fuel. Have a place in the outer stove sunk in over against the draught of the inner, so that the draught will communicate with the air of the apartment, and not with that between the two stoves. Cover the top of this sheet iron case with an ornamental grate, or wire gauze, surrounding the urn of water standing on the inner stove. Now connect this apparatus with the air out of doors, by a tin conductor, from three to five inches in diameter, leading from your cellar window, along under the parlor floor, and then up through the floor, immediately under the stove, into the open space before described. Insert a register in the pipe directly under the stove, by turning which with your foot, you can easily regulate the quantity of fresh air you wish to admit.

These outer stoves can be made quite ornamental, and can be put up in as many rooms as you desire to warm.

The objects proposed to be gained by this arrangement are obvious. Fresh air will be constantly introduced into the house, and yet not admitted into the apartment occupied, until it has passed around the heated sides of the stove, and become somewhat warmed. In this state, no harm can accrue from it to the health of the most delicate, while if a simi-

lar volume of cold air were permitted to pour directly into the room, the health of all would be endangered. With this apparatus for supplying pure, warm air, and Arnott's chimney valve for carrying it off as it becomes vitiated, should we not have a simple, economical, and efficient mode of warming and ventilating country houses?

The only practical difficulty in it which has occurred to me is, that with such a current of cold air continually surrounding the inner stove, there might not be sufficient heat radiated to warm the room. Perhaps, however, the warm air pouring out from the top of the sheet iron case would accomplish this. If it would furnish 60° or 65° Fahr., it would give as high a temperature as a person ought to live and sleep in during the extreme cold and fluctuations of our northern winters. Please give us your opinion as to the practicability of the plan above suggested. Respectfully yours, A. D. G.

Clinton, N. Y.

REMARKS.—What our correspondent suggests is a great improvement on that popular abomination—the common stove. Just such a ventilating stove, is, in fact, already in use in the common schools of Boston—"Clark's Patent ventilating Stove," (described in our "Country Houses," p. 471.)

But the real difficulty in all stoves lies in the high temperature to which the surface of *hot iron*, which forms the stove itself, is liable to be heated, and the certainty with which hot iron robs the air of its purity, when so heated. If a stove could be invented which, instead of heating the air by presenting a surface of hot iron, backed by red-hot coal or wood, did so by presenting a surface backed by *hot water*—or, in other words, if the iron stove were cased with a thin space of water all round, and the radiated heat came from this surface of boiler, which *could never be heated above boiling point*, and would, therefore, never rob the air of its purity—such a stove, with the supply of pure air introduced as our correspondent points out, would be perfect, quite healthful, and satisfactory.

Much the most genial and healthful temperature yet attained, is that from hot water pipes, or steam pipes. We notice, with pleasure, that the Astor House, and many of the large hotels and steamboats, are of late heated in this way. Some of the manufactories are endeavoring to invent a boiler and pipes sufficiently compact and cheap, to answer as a substitute for the common furnace, in heating houses. It is undoubtedly true, that enough heat is wasted in the kitchen flue of many dwelling houses, to heat the whole house most completely and salubriously, if it could be made to heat a hot water apparatus, connected with a system of ventilation, by which all the heat could be retained in the house. Patience, and continual experiment, will, we trust, bring about this desirable result, for, with the exception of the Russians, no civilized people breathe so much poisonous air, as we Americans of the present day. ED.

THE GRAPE IN VINERIES.

BY T. W. L. JR., YONKERS, N. Y.

Is there any rule for the distance of grape vines from the glass in different latitudes?

From my own experience in this part of the state, I would recommend about nine inches, but in a more southern climate, where the sun is more powerful, and there is a longer continuance of heat, I am afraid this is too close, and may injure the vines. Some of my correspondents in the state of Virginia, are anxious to put up warm and cold graperies, and if you have any information on this point, you will confer a favor by replying to this communication.

Graperies have now become so common, that few persons who can afford it, will do without them, when for a moderate outlay, they can have from ten to fifteen pounds a day of the different varieties of this delicious fruit, for many months in the year; and any information as to the character of the buildings, and growth and treatment of the vines, must prove valuable to your subscribers.

There is another point in this connection, to which I beg to ask your attention. Is it advisable to go to the expense of a flue in a cold house, not for the purpose of forcing, but to be used occasionally to get rid of damp and prevent mildew, and also to preserve the crop through the early winter months. In the southern states I should judge there is even greater danger of mildew, almost the only difficulty to guard against in the growth of the vine under glass, and which, in our climate, renders the out-door culture impracticable. At the south they have still more dampness, as is shown by the moss and other parasites with which their live oaks and other magnificent trees are covered; and it appears to me, that a flue for the purposes I have mentioned, will even be more necessary there than here. Yours, T. W. L. Jr.

Yonkers, April, 1852.

Remarks.—Our correspondent's conjecture about a greater distance of the vine from the glass, being needful in more southern parts of the country, is quite correct. Yet as the grape leaf needs a great deal of strong, pure light, care must be taken not to go too far, (for the farther from the glass, the more the light is decomposed,) and twelve inches is far enough, in all cases. A more important point still, is to have the roof glass uniformly clear, and free from wavy lines—which invariably burn the foliage, and thereby injure the vines.

A common brick flue would be a most useful appendage to even a cold vinery, in all parts of the southern country where there is much dampness in summer. A fire would only be needed occasionally, and the fact that a brick flue is a rapid absorber of moisture, and that wood is the fuel most readily obtained all over the south, point out this as the cheapest and best mode of heating them. By having one end of the vinery—say the north end, terminated by an enclosed shed—the furnace might be placed in this, and the flue carried from it through the house and back, above the surface of the border, without any loss of space.

We may add, that the farther south, the more imperative the necessity of placing the span-roofed vinery, (the most economical and best form for a cold vinery,) on the north and south, instead of the east and west line. In the former case, the violence of the mid-day sun is avoided, and in the latter it is greatly increased, to the manifest injury of the vines. Ed.

HINTS ON THE CULTURE OF STANDARD PLANTS.

FROM THE LONDON HORT. MAGAZINE.

How strange a confirmation of the truism, "Too much familiarity breeds contempt," may be found in the world of flowers and plants! The most beautiful things in the vegetable kingdom are neglected when they become abundant, and comparatively worthless subjects are courted and esteemed while they are scarce. We may hear a beautiful melody until we are nauseated with it, and we may see flowers and plants so common that we treat them with contempt. But men ought to endeavor to correct this morbid appetite for

novelty, and cure themselves of their ill-founded dislike to subjects that are plentiful. But plants are first doomed to neglect for their abundance, and many have been actually thrown aside. It is with a view to bring some of these subjects from their lowly station or their oblivion, that we have commenced this article, and we hope we shall be able to impress upon the reader the necessity of looking well to the properties of a plant before he adopts a novelty or rejects an old favorite. Some of the subjects we have mentioned in the following remarks, will bear comparison with the most valuable of modern introductions; and it behooves the lovers of the garden, the owners of an establishment, to insist on their being brought forward conspicuously, for they deserve it more than a vast majority of costly and novel plants that bear a heavy price.

The Agapanthus.—We class this splendid subject among neglected plants, because in the few places where it is seen, it is hardly worthy of the name, from the imperfect manner in which its growth and flowers, in nearly all cases appear. It may be familiar with some of our readers when described as a leeky-looking plant, with an upright stem, and a small mop-like head of blue or whitish flowers. Being unable to sustain itself through our sharp frosts, it is usually grown in pots, but as it is very nearly hardy, it is too often kept among the plants of secondary importance, in the cold frames or pits. Like all other subjects of which the head of flowers is the leading object, there should never be a second head allowed on the plant, and the offsets should be removed as soon as they are large enough to take off. The usual culture is marked by that kind of inattention that is seen to result in the starvation of the plant, and the consequent smallness of its bloom. They are potted and put among the ordinary miscellaneous contents of a cold frame; they have to endure all sorts of privations and visitations calculated to hurt plants: the want of water and room to grow in, and the hot beams of the sun to bake up the root, are their lot at one season; and at another, they are deprived of air and suffer damp. In short, they are fairly classed among neglected plants, and it matters not how soon they are rescued from the degraded rank they at present hold. We have seen, by the occasional introduction of the plant in flower among the collections at the shows, the state in which modern gardeners think it exhibitable. To us, who have seen the head of flowers twice as large, and the growth of the plant handsome, the best we have ever seen at exhibitions was a comparative weed. The only way to grow it is as a single plant; no offsets should be allowed on any condition to grow large enough to rob the parent of any nutrition, for although offsets may have their own roots, and may not receive much nourishment direct from the principal plant, the roots themselves take from the soil that which the main plant requires. The rules may be laid down something after this fashion for the production of the Agapanthus in its best possible state. We might observe, perhaps, that although the several kinds will supply bloom collectively from April till October, Agapanthus umbellatus is our favorite. This and A. variegatus bloom in April and May, præcox in June and July, minor in August and September, and albidus in September and October. All are pretty.

These plants should be separated every year, and the separate plants potted in the size best adapted for the roots, in most cases size 32; in some cases, if smaller plants, the size 48 will do to commence. The soil should be the richest loam obtained from rotted turf, three-fourths, one-fourth cow dung and sand, with the impurities of every kind washed out. Choose a plant with a good solid heart and plenty of leaves, place potsherds or crocks about two inches thick in the bottom, and plant the subject so that the collar shall be close up to the surface, that is to say, the root only shall be underneath, for if the heart of the plant is sunk at all, it retards the healthy growth, and blanches the leaves. Let this be done in autumn, and place them in a green-house, but where no fire is kept, or in a brick

pit that is very dry with a hard bottom, and so contrived that wet shall run off when it runs through the pots; give air in mild weather by entirely removing the lights, but when the winds are cold or boisterous, or the rain cold' as well as when frosty, keep the lights on and close down, or tilted a little on the side or end opposite the weather. What is required is steady growth without checks.

When the pots are filled with roots let the plants be shifted to those of a larger size, and remove all the side shoots or suckers with a sharp knife, or by pulling off without disturbing the ball of earth any more than can be helped. You want all the growth in one central heart or plant, and nothing to detract from it. They may then be returned to the frame, and greater care should be taken than ever to prevent a check. Also the suckers must be removed directly as they appear, and not be allowed to grow at all. If the shift before is from forty-eights to thirty-twos, they must next be changed to twenty-fours, and from these to sixteens, but the latter shift may not be required till the spring. The rule is to shift them when the roots begin to mat or cross one another next the side of the pot. It may happen that in March or April they throw up their flower stem, and the instant they show this the ball should be examined, to see if the roots reach the side; if they do, give them another shift, whatever size they may be in, and water freely, but never let them be watered when the soil is moist. They are now doubly sensible of a check, and therefore require the more care. They like to be cool, but never cold. If they bloom the first spring after planting, it is never so large as when they go over a second; but with care the bloom of a first spring is twice the size of those we are used to see in plants neglected in the ordinary way, by being thrust with other half-hardy things in a cold frame, sometimes only half glazed, sometimes open in bad weather, and at other times closed in mild. Continue to remove suckers or offsets until the bloom is over. Those plants which do not throw up their flower must be attended to in the same way throughout a second season, and during the summer months must not be subjected to the full influence of the sun all day. They should be placed on a dry bottom, where they will have only the morning and evening sun, and not the full mid-day beams, for it only dries up their roots next the pot, and checks them as fatally as frost would in winter. Nor must they be exposed to heavy rains. The best management through the summer is to keep them in the pots, but to cover them in the middle of the day with the glass, tilted all round, and a slight transparent cloth upon the glass. We are prepared to hear many say, this is taking a great deal of useless trouble, but if they will try a few this way, and let the others remain neglected as usual, with the offsets accumulating in the pots, and the plants sometimes wet and sometimes dry, sometimes burning in the sun, and at other times perished with the frost or cold winds, they will soon admit that they have never seen the Agapanthus umbellatus in its true character; for in perfection it is a noble plant.

Orange and Lemon Trees.—There is something aristocratic in the appearance of an orange or lemon tree, and although they require no more pains than many plants which are nursed and taken great care of, there is nothing much more neglected. In all establishments there are some overgrown, long-legged, pot-bound plants, that exhibit all the symptoms of neglect or positive ill-usage; generally speaking, the mould they are in is sour and clogged together, the roots half rotted, the trunk or stem covered with scale or vermin of other kinds, the leaves small and yellow. If we see younger plants, that have only been in the country a year, it is the same so far as it has been carried; at the proper season they are not potted; they are making stunted growth, or are otherwise neglected. Whether it is that the plant is misunderstood, or they are considered not worth the trouble, not one place in twenty is a proper asylum for these trees; and when they are intro-

duced in fine health, they generally get worse and worse, until they are scarcely worth the trouble of recovering or of throwing away. When the tubs, or pots, or boxes in which they grow are too big to move about, and are crowded altogether into a receptacle hardly big enough for a third of their number, we can feel the difficulty of getting at them to give the proper attention, and contemplate the certainty of their taking harm from the confinement, their want of air, light, and water, or from too much wet, with nothing to either drain it off or blow it off. We care not where anybody goes, all the old establishments are alike, and with few exceptions, where everything is first rate, it is rare to find either an orange or a lemon tree, or any of the tribe of shaddock, citron, or lemon, in what could be fairly called good health and condition. But for its claims on our skill and industry, where is the subject can beat any of the tribe? Its odoriferous qualities are not excelled by those of any subject in cultivation. Perhaps the Daphne indica odorata may take its place by the side of these, but certainly if there be any difference the Daphne must give place to the orange and citron tribe. The flowers are delicate and graceful, the tree evergreen and handsome, and tractable in every sense of the word, for it may be trained a dwarf, a pyramid, or a standard. It may be budded, grafted, or struck from cuttings, each will grow in the stock of the other, and the tree, kept in good order, will, during a great part of the year, have flowers, and fruit of all sizes and states of ripeness and unripeness. But no tree sooner feels the effect of neglect, and none have been more subject to it. The shaddock is the most rapid growing of the whole family, and therefore is strongly recommended for stocks, and all the kinds will graft or bud well on it, and grow vigorously. Our first business is to direct something to be done with the old and ugly trees already about the country.

Management of Old Trees in bad Health.—Cut in the head to half its present size, and cut out altogether some of the weakest branches, that there may be room for a healthy growth from the shortened branches; at the same time that the head is cut in, take the roots out of the tub or pot, and if the ball be very hard, damp, and black, soak it some hours, and wash out all the earth. Fill the box, pot, or tub, thus: first put plenty of crocks, to secure good drainage, next the loam from rotted turves three-fourths, one-fourth cow-dung and peat, the cow-dung very much damped into mould, and the peat, which should be turfy, broken small,—the whole well mixed; some of this on top of the turves, to make a bed, as it were, for the bottom of the roots, and the pot, tub, or box, must be filled up with the compost, tucked in between and well shaken. Orange and lemon trees that appear to be doing no good, and growing no form, or an ugly one, with naked branches, and weakly shoots, may by this operation, be renovated in two or three seasons to full beauty and bearing. But some conditions must be observed in all cases; first, that as the rotten, decayed, and closely matted portions of root must be removed, a large portion of the head must be removed also; second, that the roots must be pressed on all sides with the soil, and this can only be done with great care, and pressing the earth between them with a blunt piece of wood. It is, however, better in all cases to freely prune the roots, to facilitate this part of the operation, and to cut the head in to a complete skeleton, and shorten the whole of the branches very much, to compensate for the loss of roots, and begin the larger quantity of new wood. Let the trees thus treated be placed in a close house for some time, until the new growth has started, when all the shoots wanted to form a good full head, must be left on, but others, where they are too thick, must be rubbed off before they waste the resources of the tree unnecessarily. When they are fairly started, they may have air in mild weather, but should be shaded from the mid-day sun. Watering must not be done too often, but effectually, when done at all; and the pots or tubs

must either be on feet, or propped up with bricks, or blocks of wood, to let the air go freely underneath them, and the water that comes through them run away. If there be any portions of the tree so bare of shoots as to spoil the appearance, inoculate a few buds here and there, of the same kind as the head already worked, for nothing is more unsightly than a decided deficiency in the head or bush, nor is there anything much more easily rectified by means of budding or grafting. This attention, bestowed on old trees that are now so many emblems of idleness, in old establishments, would soon change their aspect; for once in sound wholesome compost, instead of the filth once recommended, they would grow vigorously, and soon bloom. Choose March for the operation; it is on all accounts the best month. As the general culture of the Orange, forms the subject of a treatise already written for this work, we shall not enlarge upon the management now, but we strongly recommend all who possess such specimens as we have mentioned, to kill them, or cure them, directly.

Daphne Indica Odorata.—This beautiful and highly odoriferous plant, is one of the most neglected subjects in cultivation: a good specimen is as scarce as a Queen Anne's farthing; and he is a lucky man who ever possessed one, if, indeed, he be not lucky who has ever seen one. Its habit of growth is, perhaps, the very worst that can be imagined, if it be neglected; and we never saw a large one that was not so. Its general growth is with naked stems that will not support themselves, with a bunch of short branches towards the end, too thick to grow well; and three out of four of the bunches of flowers on old plants, are deformed or cocks-comb like, and so crowded that the flowers cannot open. Young plants may, however, be grown better, if properly worked, and carefully managed; and when a specimen can be got not too long in the legs, and with half a dozen bunches of bloom, it is not only pretty, but of exquisite fragrance, and tolerably lasting. We have tried to bring old plants into shape and decent growth, until we are almost tired. There is but one proper remedy, and that is to cut them down; but this will not always answer; sometimes they will not break, and the plant is lost; at other times we have been more successful. We now, when we get hold of an antiquated specimen, with its crooked stems bending in all directions, and its bunches of green at the ends, sink the pot in a pit, lay some of the branches, and inarch others on spurge laurel, and so make it at least answer the purposes of propagation. If it breaks near the bottom, so much the better; because, when we release all the layers and grafts from the old stock, any little growth there is greatly strengthened, and we make the most of it. We have, in some instances, found them break well all after the branches were cut back to a few inches from their base; and when we saw how they were breaking, we have been able to preserve as many shoots as would make a good bushy plant, and rub off or cut away the rest. In growing them, they must not be excited; the slower they grow the better, so that they do grow. A cold pit is the best protection, because it keeps off rain, or admits it, according as it may be wanted or otherwise, and it can be made to keep off frost, without wanting fire heat. The soil for these plants should be loam from rotted turves, two-thirds, and one-third equal proportions of cow-dung or horse-dung thoroughly decayed, and turfy peat. These should be chopped, and rubbed through a very coarse sieve, that would let a bullet through. In cutting down old plants, or before submitting them to the process of laying or inarching, they should be turned out of their pots, and put into larger ones; but if they are to be cut back at once, they may be root pruned if necessary, and for this purpose a good deal of the ball must be removed, and, as soon as it is changed, the plant, or rather the stool of the plant, should be placed in a house of rather warmer temperature than a common green-house, for eight or ten days. There are many good nurseries, at

which they have not a single specimen of this very excellent plant. They seem to us to do better upon their own bottoms, than they do worked; for sometimes we have seen a good many that have gone off among a far less quantity that stood. Whether this has arisen from the stocks not being worked in a proper state, or their not being well established, we have yet to learn: we have had many that have stood for years with care and proper culture. Young plants should be kept cool when they have once fairly started. They cannot be better provided for than in a common garden-frame, with a light over them to take off and put on at pleasure. The branches should be thinned if they come too thick, and they want a little regulating and pruning; but it must not be forgotten that the blooms come at the ends of the branches, and therefore that, although branches may be thinned out, none must be shortened till after they have bloomed. When they have done flowering, they may be trimmed into shape, and left to make their proper growth.

ON THE PROGRESS OF HORTICULTURE IN WESTERN NEW-YORK.

BY W. R. COPPOCK, BUFFALO

THERE is probably no subject that has engaged the attention of the staid citizens of the middle and western part of our Union, during the past decade, more than orcharding and gardening, and that too with a business-like discriminating judgment, taking advantage of the present progress of the arts and sciences, and calling to her aid these accessory auxiliaries so far as they have a bearing upon this subject.

A peculiar feature in the character of the American, (and indeed the immigrant soon feels the inductive spirit,) is to possess a *homestead*, whether it may be a town or village lot, or larger plot, to "farm." It must be his; the fee simple is necessary to his comfort and happiness. Hence it is, that in no other country are there so many owners of the soil, and nowhere so few landlords. Herein lies largely the stability of our institutions and the patriotism of our people. The sacredness of these consecrated spots make men jealous of their prerogative, and ardent defenders of them in time of external strife. "Those shocks of corn," said XENOPHON, "inspire those who raise them with courage to defend them."

The spot possessed—the orchard and garden soon take form. The busy housewife, by hook or crook, has her roses and other posies scattered hither and thither in tasteful plats, while the *manor lord* may not so easily, but yet surely plant his fruit grounds. But at the onset lies a difficulty—with what varieties? In tillage, in composting, and in draining the wide spread experience of the past, through the press, has become his; but, in the selection of his fruit, he finds confusion worse confounded—the immensity in the catalogues bewilder his conceptions, and he applies to a friend to aid him in his dilemma. His list reads: apples, Baldwin, Esopus Spitzenberg, Rhode Island Greening, &c. An Ohio cousin, at this juncture drops in, and expresses the greatest consternation at the mistaken selection. "Why," says he, "I and my neighbors have tried these fruits and condemned them long since. Your Baldwins and Spitzenbergs go off with the *dry* and *bitter rot*, and my neighbor, Mr. SPRINGER, has twenty trees of the Rhode Island Greening, twenty years old, which he says are not worth twenty cents! You had better take the Cooper, Belmot, and Yellow Belleflower." Hum!! how doctors disagree; our neighbor on the Island says the Cooper is "cornfed," and would not have it within fifty miles of his farm—and as to the Belmont and Yellow Belleflower, they will not ripen in western New-

York." Thus it is we find that all fruits are more or less local in their qualities. The next in the list come pears. Ah! Pears. What a vision comes over us in the category here presented. The Belgian, the French, and the German, and a host of other foreign *Bonchretians*, besides no small number of natives meet us at the onset, to puzzle and perplex the novice in these latter days. Who does not revert with peculiar gusto to his luscious fill in boyhood days, of *fox-grapes* and *sugar pears*, aye, and will not soon forget it. Your correspondents have lately been sparring over the "*Orange Bergamot*." How strangely whimsical are opinions at different periods of men's lives. Early associations, boyhood tastes, and even contingent circumstances, all conspire to form and fix opinion—I will not say judgment, in more things than years.

Here I must tell a story, in point, too good to be lost; it occurred some ten or dozen years ago, when the dwarf and standard Beurres of the present day, had not got thus far in the west. A farmer desired to plant a collection of pears, having occasionally tasted this fruit in older towns, but without a knowledge of their names, and applied to his neighbor the nurseryman for his *best* trees and advice. "Why, yes sir," he replies, "you want a dozen of my *Orange Bergamot*, there is no other pear worth cultivating." "Well, I will get my ground prepared and call for them." Half a dozen years slipped by before this was accomplished, when the farmer again calls upon the nurseryman for his dozen *Orange Bergamot*. But lo! the spirit of the age has been moving, the "*Horticulturist*" had dawned, the orb of pomonal lore had risen higher in the scale of intelligence, and the *Orange Bergamot* was an out-cast from that nursery. To contend with the worthy Col. and recapitulate his former opinions, his marked enthusiasm for its fame and luscious qualities, was to no purpose,—that pear could not be got there!!

Co-existent with the horticultural press, and the pomological works which have in rapid succession appeared, horticultural societies have sprung into active existence, in nearly every well organised community; and to these associations mainly, may the electric changes in the astonishing increase of fruit grounds, and the enthusiasm evidenced in flora culture, be attributed. These exhibitions are in fact schools, where all may see and learn the mysteries and practices of the art. Here taste is formed, and instructive, free discussions and comparisons are made by every member; points of excellence or faults in fruits, flowers, or vegetables, are shown; and he who runs may read, and although, occasionally, some one may be disposed to apply to himself his neighbor's *thunder*, and detail it through the press as his own fulmination, yet the error is of that pacific nature that no moral harm is done, while the masses may be benefitted.

A novel feature, as adopted by our Buffalo Horticultural Society, I beg leave to mention for the benefit of other kindred societies. During the winter season—that is, between the autumnal and the following spring exhibition, and while the orchard and garden are enjoying that repose which nature demands as a restorer of exhausted fruitfulness, our society meets semi-monthly at the residence of a member, adjourning from one to another, as then agreed upon—assembling at 4 P. M., and partaking of a collation during the evening. Fruits in their season, are contributed by the members generally, which are cut and fully discussed, as also the experience and practice of the grower. The subjects of debate are, of course, those only pertaining to the objects of the society, and it is remarkable how quickly the novice becomes enlisted in the subject, and is forthwith posted up on the current pomonal literature of the day. Among these gentlemen communers, may be found our friend of the apple dilemma, as also he of the *Orange Bergamot* experience, neither of whom any longer entertain a doubt as to fit selections for their grounds, or their co-relative merits. These meetings are always full of interest, entertainment, and instruction;

and although often not exceeding, perhaps, a score of members at each, rural art and rural labor, receive an impulse that is quckening, and ever onward. And neither are its beneficial effects confined to narrow limits, for whatever tends to beautify home, or to create by growth a nutritious and healthful fruit or vegetable, is indeed a national blessing. Would that these pacific and domestic associations should more often take the place of political caucuses, and local municipal wranglings.

At the organization of our Society, in '45, there was but one other similar association, (the Aurora,) in this state. Horticulture proper, was confined to the banks of the Hudson, and the neighborhood of New-York city. Fruits in Western New-York, there certainly were, but who could find them? The markets possessed them not, and neither were they aught but common varieties, at best. Yet these stocks have been rendered available. The admirable climate for fruit growth throughout this section of country, has induced the most energetic efforts. Old trees have been *headed-in* and engrafted anew, and within the influences of this society alone, *tens of thousands* of trees have been planted, which are now more or less in bearing. An immediate neighbor has marketed his annual crop of seven hundred barrels of Baldwins—and another a like quantity of Roxbury Russets; these, with numberless orchards scattered around us, have their thousands of pears and peaches, under the best systems of culture.

While these astonishing facts are being annually augmented in our midst, there are those among the more recent planters, who indulge the lacrymose vein for future results. Nevertheless, it is a well settled axiom, founded upon the experience of the past, that *choice and well grown fruits*, however greatly they may be multiplied, have never yet produced a cessation in the demand for them.

Western New-York is doubtless destined to be the great focus of fruit culture. The facilities for transportation in every direction, by railroad, lakes and canals, will enable the orchardist to dispose of his surplus at remunerating profits—while thousands of barrels of our fruit are annually sent to New-York, and then shipped to southern ports—the West Indies, and even to England and France. There are thousands, also, that thread our lakes for the great west. Even Ohio buys our apples, considering them superior to her own, and will gladly take our pears and plums also.

He who plants a tree, improves his estate, while he who plants a thousand, judiciously selected, and systematically taken care of, provides an inheritance having the four-fold benefits of *riches*, *honors*, *patriotism*, and *happiness*. Yours truly, W. R. Coppock.

Long-Sight Place, Buffalo, April 15, 1852.

ANNUALS FIT FOR BEDS OR MASSES.

BY AN AMATEUR.

Persons who are late in getting their flower gardens in order, or who have at hand very limited means for this purpose, will find it wise to resort to *annuals*. As much the gayest and most beautiful effect is produced by sowing the dwarfer sorts of annuals in *masses* or *beds*, (each plant about four or five inches apart when thinned out,) and as many annuals are too tall, or too coarse in habit, to be fit for this purpose, I send for the benefit of the inexperienced, a list of the best annuals for this purpose.

Mexican Ageratum, (*Ageratum Mexicana*)—Delicate *pale blue*, grows a foot high, flowers all the summer and autumn.

Golden Bartonia, (*Bartonia aurea*)—Very fine yellow, cup-shaped flower, a foot high—showy.

German Asters—A great variety of shades, of red, pink, and blue, plain and quilled—very ornamental in beds—six to nine inches high.

Venus' Paint Brush, (*Caccalia coccinea*)—Flowers scarlet—blooms abundantly for a long time—one foot.

Parti-colored Collinsia, (*Collinsia bicolor*)—Purple and white—very pretty—six inches—should be sown with one-half Schisanthus, to keep up the bloom till autumn.

Dwarf Convolvulus, (*Convolvulus minor*)—Blue and white; eight inches high; opens only in the morning—blooms all the season.

Chinese Pink, (*Dianthus chinensis*)—Variegated, crimson, purple and white; one foot; the double variety the finest.

California Poppy, (*Eschscholtzia California*)—Bright *yellow*, and E. crocea, *orange*—bloom abundantly; six inches high.

Palestine Mustard, (*Erysinum Peroffskianum*)—Deep orange; one foot high.

Blue Entoca, (*Entoca viscida*)—Dark blue; six inches high.

Dwarf Trailing Lobelia, (*Lobelia gracilis*)—Delicate blue; three inches; blooms a long time.

Blue Nemophila, (*Nemophila insignis*)—Sky blue; very pretty and delicate; five inches—(likes the shade.)

Spanish Nigella, (*Nigella Hispanica*)—Pale blue; curious and pretty; nine inches.

Drummond's Phlox, (*Phlox Drummondi*)—Various shades, from white, crimson, dark purple and striped; nine inches high; makes fine beds.

Portulaccas—various colors—white, purple, crimson, yellow and striped—each sort should be massed by itself—will grow and bloom in any soil; four inches high.

Schisanthus—Of several species, the hardiest and best for beds are *S. pinnatus*, (lilac,) and *S. splendens*, variegated—both about one and a half feet high.

Gilia tricolor—Blue, white, and yellow, very delicate and pretty, makes excellent beds—growing nine inches high.

Blue Tweedia, (*Tweedia cerulea*)—Pretty trailing blue annual, ten inches.

Rose Lychnis, (*Lychnis Cali-rosa*)—Flesh color, profuse bloomer, four inches.

The season is so late, that any of the above may be sown with success till the 10th or 11th of May, (at least north of Baltimore;) and as they may all be had at most of the seed stores, it will still be easy, by their aid, to repair any deficiencies in the flower garden.

AN AMATEUR.

New-York, April, 1852.

THE YUCCAS—AS HARDY ORNAMENTAL PLANTS.

THERE are few plants so ornamental as several of the Yuccas, and yet we seldom see them employed in any conspicuous way, in our pleasure grounds or flower gardens. Here and there, perhaps, in the gardens of our curious amateurs, one sees a solitary plant, but beds, groups, and masses, never. Yet there are no plants so altogether satisfactory in many respects, as two or three species of Yucca that we can name.

The Yuccas are mostly southern plants—the name *Yucca* being a vernacular appellation in St. Domingo. Some of the species, however, are natives of the United States—from Virginia to Florida, and far from being tender, they are hardier than many really northern

plants. *Yucca flaccida, angustifolia* and *filamentosa*, bear a temperature of 10° or 15° below zero of Fahrenheit, and Y. gloriosa 6° degrees below, without being at all injured.

As they grow with great facility in any rich, light soil, and are easily propagated by division of the roots, there is no reason why they should not be cultivated in every flower garden. April, and the first half of May, are the best season for transplanting the roots.

The Yuccas belong to the *lilly* tribe, in the natural system of botany, and the tall stem, (branched like a tapering pyramid,) of superb lilly-like flowers, of a creamy white color, that each plant throws up in mid-summer, forms one of the most remarkable embellishments of the flower garden or shrubbery. But a great merit of the Yuccas, over most herbaceous plants, is the constant beauty of the foliage, in fact of the whole plant, all the year round. The general appearance of the plant is not unlike that of the Agaves, or Century Aloes, (to which they are allied,) only the leaves are narrower—being only an inch or two broad. These leaves retain their deep green verdure summer and winter, and being systematically arranged on the plant, and handsome in themselves, they are as strikingly ornamental among the snows of winter, as in mid-summer. A *winter garden*, such as we have several times alluded to in these pages, would, beside evergreen trees, be most appropriatelyplanted into beds or groups of Yuccas, to cheat the season out of its dreariness. We shall notice a few of the sorts most easily obtained at the nurseries, and most suitable for the gardens of the northern states.

THE ADAM'S NEEDLE, OR YUCCA GLORIOSA.

I. YUCCA GLORIOSA, or *Adam's Needle*.—This is the largest and most striking of the hardy Yuccas. It is, in fact, an evergreen shrub, growing two to five feet high, with its

woody stem or trunk, clothed with leaves almost to the ground. The end of each leaf is terminated by a dark spine, which has given rise to the popular name of "Adam's Needle." The leaves are broad, stiff, and dark green, and have much of the picturesque effect of those of the Aloe. The flower stalk is generally about four feet high, branching out symmetrically on every side, (see fig. from *Arb. Brit.*,) but in strong plants is frequently much higher than a man's head. The blossoms, which open in July and August, are bell shaped, pale white within, marked by a pale purple stripe on the outside of the petals.

The Adams' Needle is a native of both North and South America, being found wild as far north as Virginia, and as far south as Carthagena. Though not growing naturally, farther north than the former state, it is perfectly hardy as far north as Lake Erie—or wherever the peach ripiens regularly. About Washington, we have noticed it in the fine pleasure grounds of Wm. Stone, Esq., growing most luxuriantly, springing up and flowering along the sides of the garden walks, with little or no care. About New-York it succeeds best in a perfectly dry subsoil—a deep *sandy* loam. Where it needs any protection, it is only that of a few branches of evergreens to keep off the sun. There is a variety of *Y. gloriosa* called *superba*—rather rarely seen, even in our best collections, which is still finer—being of taller and more tree-like growth, and bearing a greater profusion of pure white flowers.

II. Yucca filamentosa, or *Adam's Thread.*—This variety differs mainly from the former, in having no spines at the ends of the leaves, but instead, the foliage is irregularly serrated, and edged with long threads, which hang down two or three inches long. The same popular notion which coupled the idea of Adam's Needle with the thorn at the end of the leaves of *Y. gloriosa*, has found a corresponding thread on the leaves of this species. It is a native of Virginia; has stood many winters perfectly uninjured in the open borders of our garden on the Hudson. Its growth, however, seems slower, and it produces flowers more rarely than the Adam's Needle. Still, as both the foliage and flowers are quite ornamental, it is worthy of a place in every good garden. It flowers in September, the blossoms being whiter, and growing more closely to the stalk, than those of *Y. gloriosa.*

III. Yucca flaccida, or *the free blooming Yucca.*—This is one of the most popular, and commonly cultivated sorts in our gardens—growing and blooming with as much ease as a cabbage. It is a native of Georgia—but is as hardy as an oak all over the northern states. The specific name, *flaccida*, is given from the greater pliancy of the leaves, which, instead of being perfectly stiff, like some of the other species, are a little weak, and frequently bend in the middle. This species has no stem or trunk, and the reader may get a good general idea of its appearance when in bloom, by imagining the foregoing figure of *Y. gloriosa*, with the foliage springing directly out of the ground—the leaves, however, being narrower, and more numerous, and the flower stem about half the height. There are slender threads along the edges of the leaves. This Yucca blooms in our northern gardens as freely as the common white lilly—throwing up its beautiful pyramidal flower stalks, two or three feet high, about the end of June, and bearing a profusion of fine milk-white flowers, all the month of July. It is one of our favorite evergreen plants, beautiful at all seasons.

IV. Yucca angustifolia, *the Narrow Leaved Yucca.*—A fine hardy species, found by Nuttall on the banks of the Missouri—and grows and blooms in our gardens exceedingly well. The foliage is long and narrow, edged with threads, and quite stiff. The leaves spring out of the ground without a stem, like those of the last variety. The

flower stalk is straight, and not branched, like the preceding sorts, the flower bells more oblong, and the flowers a pale greenish white. It blooms at mid-summer, and is a very distinct and ornamental species. Messrs. Hogg, of New-York, have, we believe, cultivated it with success in the open border, for many years.

There are several other species of Yucca which are less known, but which would doubtless succeed in our gardens. *Yucca draconii*—the Dragon Yucca, a native of Carolina, growing eight or ten feet high, which is hardy in England, would no doubt be so here; but though it is to be found in many of our green-house collections, we do not hear of any one having made trial of it in the open air. There is a variety of *Y. gloriosa* with striped leaves, which is very ornamental. *Y. stricta*, and *Y. glaucescens* are an interesting species, natives of the southern states, that would well repay the labor of cultivation.

We have said enough, however, to call attention to this really noble genus of evergreen plants—whose superb flowers and striking foliage, render them more valuable as ornaments to lawns, gardens, or rock work, than almost any others that we could name. As they are mostly natives of the sea shore, they are also especially valuable to decorate the grounds of the marine cottages and villas that are springing up at Newport, and other sea-side watering places. Most of the sorts we have described may be had at very moderate prices, of our leading plant growers, and nothing but ignorance of their real merits, prevents their being much more generally cultivated.

MESSINA—A COUNTRY SEAT ON THE HUDSON.

[SEE FRONTISPIECE.]

Whoever has not seen the country seats on the upper side of the Hudson, knows nothing of the finest specimens of rural residences in America. There are in the neighborhood of Boston, many beautiful villas and cottages, designed in admirable taste and kept in the highest order, that are indeed admirable in every respect; but they, like more solitary specimens of the same kind, in the environs of many of our cities, are only suburban residences of a few acres. There are, in various parts of the country, many gentlemen's large seats, well laid out, with lawns, pleasure grounds and gardens, in a simple and unpretending manner, highly creditable to the possessors. But nowhere in America, are there to be found country residences, where nature has done so much to assist man in his attempts to create a beautiful home, as in what may be called the upper terrace of the Hudson. This includes a hill of land on the eastern shore, extending from Hyde Park to Hudson city, a distance of about 50 miles.

The peculiar advantages of this part of the river are these: First, the finest mountain and river views in the country—the river being the Hudson, in its loveliest portion—sometimes two or three miles wide—indented in outline, and varied by numerous islands; the mountains being the Catskills—their highest summit 3,000 feet high—near enough to give a character of grandeur to the scene, and distant enough to possess that blue haze of atmospheric distance, which makes a mountain a bit of poetry, instead of a bare reality of rocks and trees in the landscape. Second, they have the advantage of having been held as country seats since the first settlement of the river—with much of the fine natural beauties of wood and water preserved and heightened by the fostering spirit of taste, rather than despoiled by the avaricious spirit of the mere tiller of the soil.

For almost the entire distance of this fifty miles, the east bank of the Hudson is one line of country seats—varying in extent from fifty to 500 or 600 acres. Instead of having the same general features of interest and beauty, nothing is more striking to the picturesque tourist, than the highly *varied* character of these places. Every mile seems to present new groupings of headland and foreground, some new combinations of wood, water, and mountain—so that no one who has seen one or two places, can imagine with certainty what will be the aspect and picturesque character of the next residence. The enchanting beauty of the Hudson itself is varied and heightened too by its peculiar life and animation. Snowy sails, sometimes singly in calms, and sometimes floating along in the light breezes like troops of white swans; swift steamers freighted with throngs of busy and curious people; huge clusters of freight barges, loaded down with the produce of whole counties; and finally, stealing along under the high wooded banks, the river railway, whose trains fly along between the commercial and political capitals of the state at the rate of 30 to 50 miles an hour—all of these gives to these finest seats on the Hudson a completeness of interest which the traveller looks in vain for anywhere else in America.

Among the finest of these residences, Montgomery Place, Blithewood, Ellerslie, Hyde Park and others, have been already described, and some of them illustrated in various other works of ours. Persons wishing to see the finest specimens of landscape gardening in the country, naturally go to these places, to study them as the best examples of the art, and there are few places, out of England, where the lover of embellished home scenery, can find so much gratification and instruction.

About the center of this upper terrace, lies Messina, the seat of the late JOHN R. LIVINGSTON, Esq., a sketch of which we present in our frontispiece this month. This house is one of the noblest in its proportions on the whole river, and is worth an examination as a specimen of a first class mansion in the country. It was built by Mr. LIVINGSTON, after his return from France, some years ago. He was so much pleased while there, with the residence of BEAUMARCHAIS, near Paris, that he determined to model his own home upon it. This accounts for the air of a French Chateau, which we discover in some of its features. The design was, however, really drawn by an English architect, BRUNEL the celebrated architect of the Thames tunnel—who came out to this country and erected two or three residences for different members of the LIVINGSTON family. The plan of the interior is spacious and elegant—the rooms large and finely proportioned, uniting some of the best features of both the English and French residences.

Finely varied and extensive grounds surround the mansion at Messina. There is an abundance of foliage and fine old trees, the scenery is beautiful and the neighborhood most picturesque and interesting. Though not at present in the high condition of some of the places we have just mentioned, (owing to the want of personal interest, consequent upon the declining health of the late proprietor,) it could readily, in the hands of a person of taste and fortune, be restored to its former high keeping. As it is but rarely one of these first class residences are to be obtained, we believe we shall render a service to some of our numerous readers who are annually settling in the country, by drawing their attention to a site that has long been considered one of the best in the Union.

Reviews.

COTTAGE RESIDENCES: *or a series of Designs for Rural Cottages and Cottage Villas, and their Gardens and Grounds; adapted to North America.* By A. J. DOWNING. Illustrated by numerous engavings. Fourth edition, revised, enlarged and improved. New-York: John Wiley, 18 Park Place, 1852.

IT is neither fitting nor necessary, that we should say anything as to the merits of this volume. The circulation of several extra large editions, and the results all over the country in the shape of numberless cottages and villas, erected from the designs it contains, are, perhaps, sufficient proof that it has both found favor in the eyes of the public, and has exerted a considerable share of influence in the formation of the popular taste for rural architecture.

The present edition, just issued from the press, will be found to contain several new designs for cottages, lodges, &c., with considerable additional matter, and the original text entirely revised throughout.

The most important addition, however, is a chapter entitled, "*Further hints on the Gardens and Grounds of Cottage Residences.*" In this chapter we have given general directions, accompanied with plans, for the laying out of plots of ground, from the smallest *parterre* of flowers, to the largest area in which a cottage may usually be supposed to be placed. The different styles of flower gardens—the flower garden consisting of beds and masses or turf—the geometrical flower garden—the Elizabethan flower garden—the English flower garden and shrubbery—the labyrinth of shrubs—and various French and German plans for cottage gardens and grounds, are explained and illustrated in a way that we trust will be found of practical value.

This part of the work is, we think, particularly needed by ladies, who, for the most part, take in hand the laying out of the ornamental grounds of their cottage homes; and, in doing so, are frequently at a loss for hints and sketches, which, if not precisely adapted to their own grounds, might at least suggest to their own minds, such variations as would exactly answer the desired purpose.

We give, as a specimen of this part of the work, the following extract and plan, which may be in season to interest some of our readers now busy with the arrangement of their ornamental grounds.

"In presenting all these various modes of arranging flower gardens, we must be allowed to say that the modern taste of discarding any set flower garden, and, instead of it, arranging the beds of choice perpetual blooming plants, in and around a small *lawn*, in graceful and harmonious forms, is by far the most satisfactory in the majority of cases. It is especially so in all small places, where the ornamental grounds are too limited to allow of separate scenes. In such cases, the grouping of flowers round a lawn, having only one or two colors in a bed, heightens the beauty of the lawn itself, while the flowers are enjoyed, perhaps, more than in any other way.

"Fig. 102 is a design of our own, of this kind, which has been carried out and found extremely pretty and satisfactory. In this, A. is the dwelling-house; B. the conservatory, (a detached building one side of the lawn;) C. the lawn; D. flower beds; E. vase, fountain, sun-dial, or rustic basket filled with flowers. Round the whole runs a boundary belt, F. of trees and shrubs—shutting out all that portion of the grounds not strictly ornamental. In practice, it is found that small *circular* beds, about three feet in diameter, grouped in twos and threes, (like those on the left of D.) are more convenient and

effective than the irregular beds; partly because a three feet circle is large enough for a mass of a single color, in a small garden, and partly because a circular bed, like a tree, always looks well, either alone, or grouped with other circles. It is also adapted to any position, which an irregular bed is not.

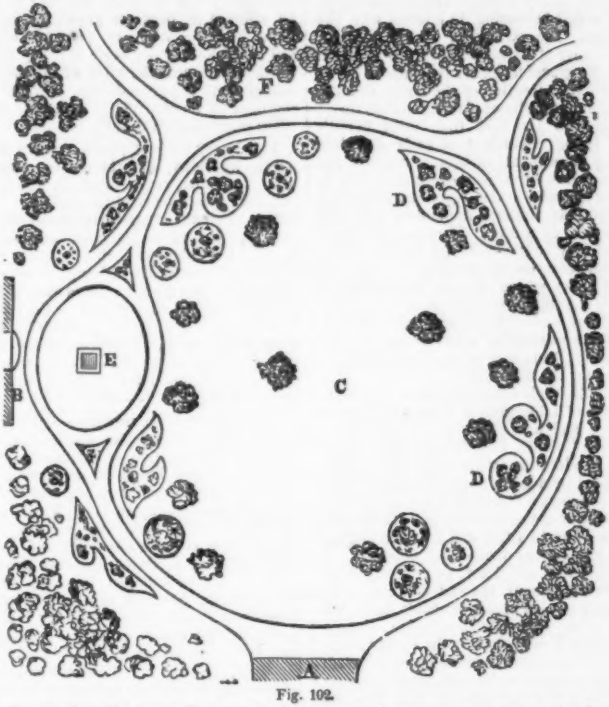

Fig. 102.

"In order to give the lawn C, a more picturesque character, we have introduced a few single specimens of trees, such as grow with beautiful forms when standing alone. We may mention, as peculiarly adapted to such sites, the Chinese Magnolia, (*M. conspicua*, and *M. soulangiana*,) very hardy and beautiful; the Weeping Ash, Weeping Beech, Purple Beech, and Weeping Silver Lime, all striking in habit and foliage; the Ash Leaved Maple, or Negundo, for its lively green foliage; the Virgilia of Kentucky, with snowy white blossoms; the Virginia Fringe Tree, ect. As evergreens, to plant them singly we may enumerate the Deodar Cedar, the Norway Spruce, the Himmalayan Spruce, the Irish Yew, and the Silver Fir. A lawn and flower garden combined, and planted in this way, would have a tasteful and beautiful effect in any situation, or in connection with a residence in any style." p. 204.

Foreign and Miscellaneous Notices.

THE GLADIOLUS.—The genus Gladiolus now comprehends many brilliant species and varieties, and is fast increasing in interest with the floral world. The variety of colors, together with the beauty of its varied stripes and markings, and its graceful habit, recommend it as well worthy the attention of the florist or amateur. Like most bulbous plants, Gladioli thrive and flower with less care than most florist's flowers. Being comprised of early and late kinds, they blossom at various seasons of the year: the earliest sorts commence flowering in June when planted in the open air, and many of the late kinds continue in blossom up to the very approach of winter. They are perfectly hardy, and may be grown in any common garden soil not retentive of moisture; but should the soil be heavy where they are intended to be planted, it should be removed to the depth of about two feet, and replaced by a light rich soil, composed of a mixture of sandy loam and leaf-mold, or sandy loam and peat, allowing six or nine inches for the drainage.

The Colvillii kinds come very early into flower; they are of taller growth than others of the early sorts, and are of erect, slender habit. They include Colvillii, Colvillii blandus, Colvillii superbus, odoratus, tristis, and others; they are succeeded by a more numerous class, which generally commence flowering about two weeks later; the latter are composed of varieties varying from a foot to a foot and a half in height; they comprise a great diversity of colors.

Other varieties are later, and mostly commence flowering about the end of July, or in August; they are of stronger habit than the preceding kinds, and exceedingly rich, though not so varied in their colors as the earlier sorts. They produce a longer succession of flowers; many of them throw up lateral spikes of bloom to the latest period of autumn; and vigorous plants, lifted and potted, continue to bloom during the winter.

The varieties of Floribundus, Gandavensis, and other late tall-growing varieties, chiefly come later into flower than most of the above. Of these, Splendens is a very noble variety, of a rich orange scarlet, with much larger flowers than Gandavensis. Psittacinus sanguineus, is a good dark one. Brenchleyensis is another splendid addition to this class.

For pot-culture the Gladiolus is very suitable, making a beautiful show among other plants in the green-house or conservatory, and where a large collection is kept, some may be had in in flower nearly all the year round. In potting, the roots should not be cramped; they require a fair portion of pot-room. Sandy loam and peat, or leaf-mould, or any light rich soil, the pots being well drained, suits them well. When first planted, as is the case with most other bulbs, they will not bear forcing; they should be allowed to progress gradually, by placing them in a cool frame or pit, and keeping the soil in a tolerably dry state till they have made considerable growth; after which they may be brought into the green-house, or where they are required to flower. They make fine specimens when planted several bulbs in a pot.

This lovely tribe of plants opens a wide field for the hybridist, and the amateur would find it an interesting engagement, in which his skill and time would be richly rewarded. In endeavoring to obtain crosses, the choice should not only be directed to the color and size of the flowers, but chiefly to their expanding habit and breadth of petals; for although there are many fine sorts which do not possess each of these latter qualities, yet they should be the points to be aimed at in our progress towards the improvement of the tribe. Seedlings of the early varieties usually flower the second summer after sowing, and the later varieties the third.—*Beck's Florist.*

AN ACRE OF HOLLYHOCKS.—Till within these last few years this flower was used as an ornament in the plantation or shrubbery border only; but it is now becoming an especial favorite with the professional and amateur florist, and bids fair successfully to rival, if not to outvie the Dahlia. The particular sorts selected for this purpose are of a character and family entirely different to those formerly grown. Instead of the bell-shaped blossom, showing a large eye, the new and superior varieties have a semi-spherical flower exceedingly double, with closely serried petals, and a flat regular guard-leaf; the blossoms are so thickly packed around the stem, that the green leaf can scarcely peep between them, and in the best grown plants it is almost entirely hid. These properties have, in the present season, been obtained in great perfection by Mr. Chater, of Saffron Walden, in whose nursery-grounds, consisting of about six acres, *more than one-sixth is entirely devoted to Hollyhocks*, 6,000 of which are now in splendid bloom; and Saffron Walden may well be proud of such an extensive exhibition. But it is not only in the vast number and variety of colors, but in individual excellence, as has been acknowledged by the gentry and florists who have inspected his collection within the last fortnight, that Mr. C. may fairly challenge the world to compete with him. The size and beauty of color displayed in his seedling Comet, which is a fine ruby red, one would think, at first sight, could scarcely be surpassed. Equally beautiful in their several different characters and colors are his seedlings,—Enchantress, deep rose; Rosea grandiflora, light rose; Attraction, elegantly

veined puce and silver; Model of Perfection, white with chocolate ground; Commander-in-chief, remarkable for immensely long spikes of flowers towering nine feet high; the Queen, a delicate blush; Aurantia, salmon-color; Pulchella, roseate; Pallida, lilac; Magnum Bonum, a rich glossy maroon; Snowball, purest white; Black Prince, sable black; Formosa, dark claret, with palmated leaves; Mulberry Superb; Delicata; Atro-sanguinea. Mr. C. has exhibited this season at Chiswick some of his beauties, grown especially in pots for that occasion; also at the Royal Agricultural meeting at Norwich, where he was awarded a prize for his Seedling Comet, and a prize for the collection; and at the South London Floricultural meeting in the Surrey Zoological Gardens he obtained a medal. A visit to these superb and elegant flowers would be highly gratifying to every lover of Nature in her gay and brilliant forms.—*Beck's Florist.*

COLD SPRING IN ENGLAND.—Up to the 18th of this Month, March, there had been for many years no spring so late and cold as this. In these respects it was even more striking than that of 1845. Continually frosty nights, little sun, no material rise of the thermometer during the day; from these causes, the temperature of the earth, which is a better indicator of weather than that of the air, was actually lower than it had been within any period during which registers to which we have access, have been kept. It is true, indeed, that in March, 1845, the earth, 2 feet below the surface, was on one occasion as low as 36 degrees, and that in this year the geothermometer had not fallen lower; but the mean of the month, at 2 feet under ground, was up to that time, lower than in 1845, by more than half a degree. The following return proves this.

The temperature of the earth in the garden of the Horticultural Society, for the first 18 days of March, has been as under—

	1 foot Deep	2 feet Deep.	3 feet Deep.
March 1	37.5	38.5	41.0
2	38.0	39.0	41.0
3	37.0	38.0	41.0
4	37.0	37.0	40.5
5	36.0	37.5	40.0
6	36.0	37.0	40.0
7	35.5	36.0	40.0
8	36.5	36.5	40.0
9	37.5	37.0	40.0
10	38.5	37.5	40.0
11	38.5	37.5	40.0
12	38.5	38.0	40.0
13	38.0	38.0	40.5
14	38.0	38.0	41.0
15	38.5	38 0	41.0
16	39.0	38 0	41.0
17	40.0	39.0	41.0
18	40.0	39.0	41.0
	37.77	37.75	40.5

Mean of March.	2 feet.
1838.....	41.46
1839.....	41.93
1840.	41.71
1844.....	42.24
1845.....	36.78
1846.....	45.55
1847.....	41.03
1848.....	43.72
1849.....	43.70
1850.....	42.33
General av'ge.	41.74
Min. of March,.	2 feet.
1838.....	38 5
1839.....	39
1840.....	39
1844.....	40
1845.....	36
1846.....	44
1847.....	38
1848.....	42.50
1849.....	42.50
1850.....	40

Since the 18th the sun has gained some strength, and the temperature of the air by day has not been lower than 47 degrees, while on the 22d and 24th, it rose to 66 degrees. Still vegetation is almost torpid; buds are swelling very slowly, and the early blossoms have for the most part, a shrunken, half-starved aspect. The continued low temperature at night, fluctuating between 25 and 28 degrees, explains this; for so little effect has the sun yet produced, that at the present moment the earth 2 feet under ground, has not gained more than 42 degrees, and this maximum still remains less than the mean of 1844, 1846, 1848, 1849, and 1850.—*London Gard. Chron.*

MACARONI AND VERMICELLI.—In writing from Naples, Mr. WEED takes the following notice of the manufacture and use of macaroni and vermicelli in Italy:

Italy, you know, abounds in macaroni and vermicelli. The making and eating of these articles enter into the occupations and appetites of every city, town and village. It is used in many forms of which we have no knowledge. It enters into all their soups and pastry, and into many of their meat dishes. And, though I started with many prejudices, I must say that these dishes are invariably good.

Naples boasts of making the finest macaroni in Italy. I visited a small town at the foot of Vesuvius yesterday, where thousands of bushels of wheat were being made into macaroni. The wheat is first subjected to a kiln-drying process, being spread on tiled roofs which are heated gently from fires within and from the sun without. It is afterwards ground coarsely, mixed with water and kneaded into paste, which is subjected to action by pounders somewhat resembling those used in driving piles. The paste is then forced through machinery which gives it its form and name, some coming out macaroni and some vermicelli, each taking, however, many varieties of form, some long and thin like paper, some like ribbons, some in balls, and others like beans, peas, and even as small as mustard seed.

At Genoa, from which place I think we get most of our macaroni, saffron is put into the paste, which gives it its yellow tinge. Here it is nearer the color of bread. Not only the Italians, but all who visit Italy, become very fond of this description of food. The impression which I think prevails in America, that macaroni and vermicelli manufacturers are not particularly clean, is erroneous. There is no good ground of objection to this food on that account.

RICE PAPER.—The plant from which the Chinese Rice-paper is made, has long been unknown, and many conjectures have been hazarded regarding it. There can be no doubt that the paper is composed of cellular tissue, and is prepared from the plant without any process of maceration. In the East Indies it would appear that a kind of Rice-paper is procured from the stem of *Æschynomene paludosa*, and it is probable that many plants with abundant pith

might be employed in a similar manner, in the same way as the Papyrus was employed in ancient times. Stems of the Indian Æschynomene are to be seen in the Museum of the Edinburgh Botanic Garden. Chinese Rice-paper, however, comes from a totally different plant. M. Berthold Seeman, who accompanied Her Majesty's ship Herald, gives, in the Kew Miscellany, the following account of his attempt to find the plant in China. He says:—

"It was my particular desire to obtain the plant of which the Rice-paper is made. On my arrival all I could learn was, that the paper was manufactured from vegetable pith; respecting the name of the plant, its vegetation, and native province, the most contradictory statements prevailed. My first aim was to discover the vernacular name of the plant; after I had succeeded in obtaining this, through the aid of an intelligent missionary, Mr. Vogel, I experienced no further difficulty in collecting information, and in finding a Chinaman willing to procure specimens. The plant grows abundantly in the province of Yunnan, and in the work of Li-shi-chin there is a figure and description of it. Mr. Williams, the well-known author of "The Middle Kingdom," has kindly rendered that account into English for me, and the following is a transcript of his version:—'The Tung-toh-muh, or as it is sometimes called, Tung-tsau (*i.e.* hollow plant,) grows on the sides of hills. Its leaves resemble the Castor-oil plant (*Ricinus communis*, Linn.;) the stem is hollow, and has in its heart a white pith, which is prized for its lightness and whiteness, and collected in order to make ornaments for women.' Kuoh-poh says; 'It grows in Kiang-nan, is about 12 or 14 feet high, and has leaves which are large and fleshy like those of the *Nelumbium*. In the stem is a very white pith. Gardeners now sow the seed, and also transplant the plant. If the stem is cooked with honey, and mixed with preserved fruit, the taste is sweet and pleasant." Li-shi-chin says: 'The stalks of those plants which grow in the hills are large, several inches in circumference. The taste and virtues of this plant are sweet, cooling, and innocuous. It aids the secretions, it stops diarrhœa and excess of urine, and helps the expectorations. A tincture of the burnt stalks reduced to power is good for lock jaw.'"

M. Seemann, from the description given, and the wood cut annexed to it, thought that it was a Malvaceous plant. But it now appears that the plant belongs to Araliaceæ, and it has been called by Sir William Hooker, Aralia paprcifera. A figure is given in the Kew Miscellany, for Jan. 1852. The leaves of the plant are large and radiating, lobed at the margin, and somewhat resembling the leaf of a large Sycamore, the pulp is in large quantities, and seems to be hollow and to descend in the center.—*J. of H.*

Sago Manufactory at Singapore.—The unprepared sago is imported from the neighboring island of Borromeo, and consists of the pith of a short, thick kind of palm. The tree is cut down when it is seven years old, split up from top to bottom, and the pith, of which there is always a large quantity, extracted; it is then freed from the fibres, pressed in large frames, and dried at the fire or in the sun. At this period it has still a yellowish tinge. The following is the manner in which it is grained:—The meal or pith is steeped in water for several days, until it is completely blanched; it is then once more dried by the fire or in the sun, and passed under a large wooden roller, and through a hair sieve. When it has become white and fine, it is placed in a kind of linen winnowing-fan, which is kept damp in a peculiar manner. The workman takes a mouthful of water, and spurts it out like fine rain over the fan, in which the meal is alternately shaken and moistened in the manner just mentioned, until it assumes the shape of small globules, which are constantly stirred round in large flat pans, until they are dried, when they are passed through a second sieve, not quite so fine as the first, and the larger globules separated from the rest.—*A Woman's Journey Round the World.*

Scientific Gleanings.—The *Hieracum plumbeum* of Fries has been ascertained to be a native of Britain, by Mr. J. Backhouse, jr., of York. It grows on Falcon Clints, in Teesdale. Mr. Backhouse, who has had an opportunity, during the past summer, of examining specimens of the Norwegian Hieracia, describes it as nearly allied to *H. cæsium*, but differing strongly in having more truncate involucres, with *broad based acuminate* apiculate scales, of a dark color, margined with green; also, in the involucres and peduncles being almost or entirely *destitute of stellate pubescens*. *H. cæsium* from the same place, and from Cronkley Scar, has narrow, *acute*, involucral scales, and usually a *large* amount of stellate down on the peduncles and involucres. *H. plumbeum* flowers *very early* (about July,) while *H. cæsium* is in perfection, or nearly so, in September. In cultivation the plants become still more dissimilar.—*Report of Edinburgh Botanical Society.*

Professor Simpson recently communicated to the Botanical Society of Edinburgh the results of some experiments relative to the growth of Alpine plants, after having been kept artificially covered with snow in an ice-house for many months. Seed and plants, when kept in this way during winter, and then brought into the warm air of summer, were found to germinate and grow with great rapidity. In Arctic regions the rapid growth of the plants during the short summer is well known; and the importance of similar experiments being made on the different kinds of grain was suggested. The rapidity of the harvest in Canada and other countries, where the cold lasts for many months, seems to indicate that if grain was kept in an ice-house during winter, and sown in spring, there might be an acceleration of the harvest. The subject

is certainly deserving the attention of cultivators.—*Ibid.* [A writer in the *Scottish Gardener* recommends to try this plan with the *Rhododendron nivale* of the snowy summits of the Sikkim Himalaya.]

The *Pe-la, or Insect-wax of China*, has been largely used in China since the thirteenth century, and has been occasionally imported into France and Britain for many years past, but its natural history is still very imperfectly known. Its chemical properties were investigated in 1848, by Mr. B. C. Brodie, of London, who showed that, even as it is met with in commerce, it is nearly in a state of chemical purity, and that it most closely resembles *cerin*, the base of beeswax. The Pe-la is perfectly white, translucent, shining, not unctuous to the touch, inodorous, and insipid. It melts at 100° Fahrenheit. It is found adhering to the branches of certain shrubs, whence it is collected yearly in June. It seems to be produced by myriads of minute insects, which either excrete, or are changed into, the wax. Dr. Mcgowan, Medical Missionary at Ningpo, is inclined to believe that the insect undergoes what may be called accraceous degeneration, its whole body being permeated by the peculiar product, in the same manner as the *Coccus cacti* is by carmine.—*Report of Royal Physical Society.*

In the village of Gries, four leagues from Strasburgh, stands a tree of *Æsculus Hippocastanum*, one of the oldest in the country, certainly dating farther back than the year 1680. At a foot above the ground it measures twelve feet in circumference. The peculiarity of this tree is, that from an unknown period it has annually blossomed on *one side alone*, one year on the west side, the next only on the east. The bare half does, indeed, present a bunch of flowers here and there, though seven-eighths of the branches are without blossom; but the leaves exhibit a more vivid green hue, while those on the flowering half of the tree are of a dull, unpleasant color.—*Flora.*

Those who have paid little attention to the Mosses, can hardly imagine the great variety of beautiful forms they present to the inquiring eye; and indeed, excepting the Ferns, there is, perhaps, no tribe of plants which look prettier than a collection of these in a dried state, and neatly fastened to small sheets of paper. We mention this just now, because a very nice series of specimens of the British Mosses, are in course of publication, by Mr. F. Y. Brocas, of Basingstoke; and these would form an excellent ground-work for those who might wish to begin to collect and study these interesting lowly forms of vegetation, and would also furnish materials for those who could only find leisure to study—not to gather for themselves. The two fasciculi published, containing each fifty species, consist of excellently preserved specimens, and, as far as we have observed, very correctly named.—M.

It appears that the flowers of the *Victoria regia* evolve a considerable amount of latent heat during the period of their development, similar to what has been observed to occur in *Caladium* and other Araceous plants. M. Otto, of Hamburgh, has observed that a thermometer plunged into the *Victoria* flower at the moment of expanding its anthers, (7h. 11m. p.m.) rose to 21¼° R., the temperature of the house being 17½° R., and that of the tank 16½° R. Upon being sunk below the anthers, a gradual decrease took place. On another occasion, the temperature of the air being 18° R., that of the water 16¾ and the thermometer at 16½° R., in the course of fifteen minutes the latter rose, in the flower, to 32½° R. These experiments were made at the suggestion of Prof. Lehmann, who thought he had formerly noticed an increase of temperature to occur in the flowers of *Nymphæa alba* during their development.—*Hooker's Journal of Botany.*

Analysis of the Strawberry.—B. Kirtland gives the following analysis in the Family Visitor, showing a large amount of potash in proportion to other constituents, much silica, and more magnesia and common salt, than are usually found in other fruits. One hundred and sixteen grains of the ashes were taken, prepared from the leaves and stalks immediately after they had borne a moderate crop of fruit.

Silica,	6.117	grains.
Charcoal and sand,	3.101	do
Perphosphate of iron,	1.515	do
Perphosphate of lime,	26.519	do
Magnesia,	8.008	do
Sulphuric acid,	1.469	do
Phosphoric acid,	6.970	do
Chlorine,	.708	do
Potash,	30.154	do
Soda,	2.790	do
Carbonic acid,	23.008	do
Organic matter and loss,	1.739	do
	116.060	do

Domestic Notices.

WINTERING TEA ROSES IN THE OPEN AIR.—Every body fond of flowers knows that there is nothing in the "wide" floral "world" comparable for refined beauty and loveliness to a fine tea rose, in fact to *tea-roses* altogether. South of Pennsylvania, they are grown as easily as common garden roses, bearing all ordinary winters with impunity. But north of Philadelphia, the tea-rose is too tender to grow all the year round out of doors—and is therefore for the most part confined to the green-house or frame.

A little experiment that we made last winter, with a bed of tea-roses, containing a couple of dozen plants, has turned out so entirely to our satisfaction, that we think it removes all the difficulty of making permanent beds of tea-roses at the north. The temperature having been so unusually severe, and the plants only one season planted, the result is all the more satisfactory. We make the process known for the benefit of floral devotees.

The bed was oval. We covered it early in November with tan-bark, one foot thick—which nearly covered all the stems—the longest being bent down. Over this coat of tan, *to keep it dry*, (that being the main point,) we put three bundles of rye-straw—gathering it in the center to a ridge or point—so as to shed off the water entirely; no further attention was paid it. When the straw was removed in April, the tan was found perfectly dry—on removing the tan the plants were found in perfect order—even the leaves of the last autumn's growth as fresh as when covered. If any of our readers can invent a simpler or more effectual mode of preserving a bed of tender plants, we should like to hear from them.

REMOVING EVERGREENS.—Those who are behind hand with their planting, may take our word for it, that there is no *season* for removing evergreens, in the ordinary way, like *this*—just as the buds are swelling and the roots pushing out young fibres. There are fifty different opinions about the best time to plant evergreens. The above may be taken as ours, and it is not given without plenty of trials of other modes. We except, of course, moving the trees with a large frozen ball in winter—but one which is only occasionally practiced.

APPLE TREE BORERS.—Sir: In New-England there is no greater pest to the cultivator, than the Apple Tree Borer. In some parts it has destroyed whole orchards. Many persons, in fact most persons, fold their hands in despair, and let the trees die. I have done better by the help of the Horticulturist—having profited by the directions given by the Editor three or four years ago. These directions are the only ones that I have seen that strike directly at the root of the matter—that is to say, by preventing the Borer in a winged state, the last of May and the first of June, from *depositing its eggs* in the bark of the tree, and thereby laying the foundation of a new brood. The old mode of killing the borers, by pushing wires into their holes in the trunk of the tree, is good so far as it goes—but it only goes half way. Since, if you succeed in killing all the grubs in that tree, a fresh set may fly over from your neighbor's trees, as soon as the grubs hatch out, and lay their eggs in yours. The plan recommended by the Editor of the Horticulturist, does the whole business; as many new subscribers whose trees may be infected, have not that prescription at hand, I shall beg leave to repeat it.

First. Kill all the grubs in the trunk of the tree, by pushing a wire up the holes as far as possible. Then take a pail—fill it half full of thin soft-soap, and stir in enough tobacco water to make it two-thirds full. Having first scraped off any loose bark, next apply this tobacco and soap paint with a stiff brush, to every part of the trunk, and larger part of the limbs—putting it on especially thick at the "crotches," and the base of the trunk—the places where the borer likes best to deposit its eggs. If this is done early in May, I can answer from experience for its efficacy. No Borer will deposit her eggs in bark coated over in this way. All the merit of the prescription belongs to you the Editor, and not to your humble servant, A. R. C. *Rhode-Island, April*, 1852.

[We may add to the foregoing, that the soap and tobacco mixture, painted over the trunks

of other trees, as the ash, peach, &c., infected with Borers, is equally effectual. The main point is to get it on before the insect comes out in a winged state—and south of Baltimore that is usually before this time. North of that point, the early part of May will answer. Ed.]

Varieties of Box—Mr. Downing—Dear Sir: Permit me, through the Medium of your ever welcome Horticulturist, to make a few inquiries concerning the different species and varieties of the Box. I have not been able to find in your pages anything about it, excepting the manner of propagating the dwarf variety—which I suppose to be the common Box, (*Buxus sempervirens,*) which I have seen four and a half feet high, and perhaps thirty years old—and which is used for borders in this vicinity. Cannot you give us a description of all the known varieties? Is not it one of our finest evergreens, and worthy a special chapter in the Horticulturist? and will you not tell us the name of the Hawthorn used for hedges in England, and described by Mr. Olmstead in his "Walks and Talks"—and whether it can be procured at our nurseries, and oblge yours truly, A Novice. *New-England, April* 5, 1852.

Answer.—There are four or five varieties of the common Box, (*Buxus sempervirens,*) cultivated in this country. The Dwarf Box, (*B. S. suffruticosa,*) in common use for edgings, is the least hardy of all, the foliage being always browned, and the ends of the shoots injured by severe winters, all over the northern states.

The Tree Box, (*B. S. arborescens,*) which has leaves about twice as long as those of the Dwarf Box, and grows from 2 to 10 or 12 feet high, is much hardier, and bears 10° below zero without injury. The *Gold-striped* Tree Box, and *Silver-striped* do., are varieties very ornamental in their foliage, and equally hardy.

But the hardiest of all is what is known as the Green-tree box, (*B. S. angustifolia.*) It has shining dark green, lanceolated leaves, more narrow and pointed than the common Dwarf Box, or the other sorts of the Tree Box—resembling more the foliage of the common Roman Myrtle. This Box will bear uninjured, a temperature that destroys or injures badly, both the Dwarf Box, and the other sorts of the Tree Box, and as its foliage is of a richer tint than any of the others, and as it may be kept in shape very easily, by the shears, it ought to take the place of the Dwarf Box for edgings, in the United States. This variety is more common about Washington, and in Maryland, than in northern gardens. It deserves to be cultivated more generally.

Grapes in Vineries.—Dear Sir: As a reason for troubling you to do me a favor, my only apology is, that I am a lover of horticultural pursuits, an original subscriber to your Horticulturist, and that I have endeavored to extend its circulation by inducing some of my friends to subscribe for it, whom I knew would be benefited by taking it. I have received great and essential benefit from it myself; and perhaps it is owing more to that than any other cause, that I was induced, in the spring of 1849, to build me a grapery, setting out my vines the middle of May, in that year. About one half of them were two year old plants, in good sized pots. They all grew well the first season, and have continued to do so since. In 1850, by crooking the older vines in large pots, I allowed them to bear each a few bunches of grapes, without hurting the vines at all. In every such case, a fine strong rod, coming from below the crook, was sent up to the top of the house, and this was the bearing wood for 1851, the old rod in the pot being cut off.

In 1851, being the third season, the vines were allowed to bear a fair crop. The fruit ripened well in all but two instances, where I had allowed a little too much to remain. But I had as fine Muscats of Alexandria, and in perfection, as you will find in Mr. Allen's graperies. Also, I had in perfection, Black Hamburghs, Wilmot's New Black Hamburgh, St. Albans, Grizzly and White Frontignans, Royal Muscadine, White Nice, Chasselas of Fontainbleau, and Syrian.

I notice what Mr. Cleveland says in the last number of the Horticulturist, on the subject of early over bearing. This is the great danger. His suggestions are important, and if attended to, may benefit those who are now constructing graperies, or who may do it hereafter. My vines are all numbered, and I have from the first kept a particular account of the state and condition of each vine, its growth, annual product, &c.—indeed, everything about it. Thus far my vines have done remarkably well—but I want to see

how they will do the coming season, which I think will test them. If life is spared, I will promise you next autumn, as full an account as you may wish of my cultivation, and its results for 1850, 1851, and 1852. I do not expect to bring anything new to light, but facts I can give you, which, if I had had them when I first began to cultivate the grape, would have been of great benefit to me. In the construction of my border, and in the cultivation of the grape, I have followed in the main, Mr. ALLEN's book, excepting that I put no dead animals into the border. P. *Hartford, Ct.*

CRESCENT SEEDLING STRAWBERRY.—EDITOR HORT: In answer to numerous inquiries per mail, permit me to say the "Crescent Seedling" Strawberry plants, can be obtained of the originator, HENRY LAWRENCE Esq., 3d Municipality, New-Orleans, at $8.00 per 100.

Mr. LAWRENCE writes me, under date of the 7th inst., saying, "I have had strawberries on my table since the 4th of January last, and at the present time have them in the greatest abundance, the average weight being *one ounce*, and about three inches in circumference; this will continue *without intermission*, until the middle of August."

As soon as my plants exhibit their habit of bearing in this northern climate, I will report the same to your readers. R. G. PARDEE. *Palmyra, N. Y., April* 16, 1852.

HORTICOLA'S NOTES ON COUNTRY SEATS.—Dear Sir: Your most admirable magazine is not one to which exception can often be justifiably taken—certainly not in any case where your own hand guides the pen, and but seldom in that of your correspondents. It is not for me to eulogize the good work it does, or attempt to magnify the place it fills in "the country" world. There is, however, in the April number of your book, a letter from one "Horticola," describing country seats, that, in one respect, is so void of a proper appreciation of landscape scenery and the beautiful in country seats, that I know you will not object to see a protest entered upon his criticism. I allude to his remarks upon the country seat of George W. Lyman, Esq. (Your writer calls the proprietor G. C. Lyman, thus showing his ignorance, as it would seem, of the vicinity) He designates it as crotchety and ludicrous. You, who have an eye for the beautiful, and the sense and perception to appreciate it, would have come to a far different conclusion had you been afforded the most distant glimpse of it. He compares it with Rose Hill, and a Mr. Leland's place, both suburban villas, of the size of two or three acres, which pretend to nothing else. Mr. Lyman's place is an estate of nearly 300 acres, full of natural beauty, and planned and executed, and actually grown by the first Mr. Lyman, nearly fifty years since, when there was no example, no "Downing's Country Houses" to guide him. He was a man of taste, natural and inbred, and he produced a work that has but few equals in New-England, one that you yourself would call a truly English country seat—for in looking at it you would be immediately reminded of the English gentleman's country home, that you have so often described. For taste in the grouping of trees, the position and effect of the house—the management of the approaches, the just weighing of art with the nature that surrounded him, Mr. Lyman was eminently successful.

I will not consume your valuable time longer, but close with the request that when you next visit this part of the country, you should look for yourself. Your neighbor, Mr. SARGENT, could doubtless have given you a more correct impression of the place than HORTICOLA. Yours, very faithfully, "A SUBSCRIBER."

We suspect Horticola not to be an unprejudiced critic, and fear, from what we have since learned, he has done injustice to several places in his last communication. ED.

WANTS OF OUR READERS.—Will you allow a subscriber to make a suggestion respecting the information wanted by a large class of the readers of the Horticulturist, who like himself, are at a loss for practical instruction on the culture of flowering plants. But few books on the subject are within our reach, and these not adapted to teach floral culture in this climate. A small number of the readers of the Horticulturist possess greenhouses or the means of cultivating plants, requiring artificial heat, yet the common frame is within the reach of most of them. Frame plants when perfectly cultivated are a source of much pleasure. Practical instruction

on the culture of plants in frames, and of the plants most proper for this culture, would be interesting to your readers; but little on the subject is in your journal—not a word on the culture of the Primula family, and many other fine frame plants. This information may be extracted from English and French works on floral culture. It will require adaptation to this climate by a skillful florist, and will then be more acceptable to your readers, than many essays which have occupied the pages of the Horticulturist; reference is not made to these essays unconnected with horticulture, from a desire to censure, for the writer believes the "Horticulturist" has done much to promote and improve horticultural taste in general, and is the best work of its class in the country; it would be still more valuable, indeed indispensable to many, were it to furnish practical instruction on the cultivation of plants in classes, commencing with plants adapted to small gardens, and continuing the subject until it contained practical instruction on the culture and propagation of all the most desirable ornamental plants grown in the open ground, the frame, the conservatory, or the hot house. Very respectfully, C. *Louisville, Ky., April* 10, 1852.

We hope some of the many experienced cultivators among our subscribers, will assist us in meeting the excellent suggestions of our correspondent, by sending us short practical articles on the culture of different classes of plants and trees. Ed.

Management of Vineries.—In reading, I think the February number of the Horticulturist, I found a statement from W. Chorlton, in regard to the management of his cold grapery, in which he states that he gathered grapes well ripened on the first of August. Now I should like to be informed if he had not two *stoves* in his cold grapery, for some portion of the early part of the season, and if he has no objection to inform your readers, who I dare say are interested in the matter, how long he kept up the artificial heat and to what degree, on an average. Yours truly, H. B. *New-York, March* 22.

Is Tan-bark a Fertilizer?—The question has been mooted, "is tan-bark a fertilizer," in one of the late numbers of the Horticulturist. Mr. Downing speaks highly of it as a *mulcher* for strawberries; and on the authority of Prof. Mapes, recommends it as a fertilizer, for that plant. Its good qualities as a mulcher, I can well understand, it being a nonconductor; and therefore a protection against the cold of winter, and the too sudden heat of early spring, guarding against great alternations of weather; allowing the cold soil after winter to become gradually warmed, preventing that rapid change from cold to heated ground, but blending the one season gently into the other.

As a fertilizer for strawberries, Prof. Mapes has found it excellent. For this purpose I have not tried it myself, but with many other plants and trees I have. I must, however, in the outset, say what I have used, was not *fresh* from the tan-yard, but had been used for the forcing of pines, grapes, and other purposes, and after all fermentation had ceased. I employed it in various ways—among others the following: I have mixed it with soil (a sandy loam) in which were planted out American Arborvitæ, Chinese do., English laurels, laurestinus, Portugal laurels, Evergreen oaks, Arbutus, Daphnes, and many other shrubs;—and in it not one genera grew well. Indeed, on the contrary, it gave undeniable evidence of being most inimical to the growth of them all; the first year after planting they put on a debilitated sickly appearance; the second year they became worse, after which the plants were moved into other ground to save them; a considerable part was so sickly they had to be thrown away. In order to test this more accurately I had a bed about 100 feet long, five feet wide, taken out to about the depth of 18 inches, and filled with old tan-bark; in this was planted a collection of shrubs including nearly all that I have already named with many others; the greater part were turned out of pots and were healthy, thrifty plants; consequently they received no check on their removal. This was performed early in April—an excellent time. The first summer, if it could hardly be said these plants grew at all, they did very miserably, turning as yellow as a lump of Californian gold, and autumn found them half decayed and dying. Here, however, they were allowed to remain—grow they did not—another year—at the end of which more than three-fourths were completely dead, and of the few which remained, only portions of the plants were alive. They

were in such a lamentable plight that the whole had to be destroyed without a solitary exception, and the bed filled in with the original soil. From the shrubs used, the reader will readily know these trials have been made in England. Tan-bark at this time, had been strongly recommended as a fertilizer for the Chinese Arborvitæ, and in my experiments it proved as fatal to that shrub as the others. For Rhododendrons I have employed it in a variety of ways, such as mixed with peat, mixed with loam, and also planted them into it in a pure state; in all of which it proved injurious, and had to be removed. Upon many other shrubs and trees I have tried it by digging it into the ground and the effects were the same, as well as on kitchen garden vegetables. I have seen it tried as a top dressing upon grass land, and its effects were most injurious. It destroyed and weakened the best varieties of grasses, and, as a consequence, gave more room for the weeds; its effects were visible at some distance. Having had annually at command a large quantity of old tan-bark, and this for some years, I have experimented with it,in a variety of ways on a large collection of trees and shrubs, as I have been describing, in an extensive nursery, without any beneficial results. In the spring of every year, the prunings, weeds, rubbish and cleanings of the nursery were regularly charred, and it was at last determined to char the tan-bark too. After which it is found to be useful as a fertilizer for heavy land, or seeds, seedling trees, cuttings, or any thing requiring a light manure.

From the above facts it is evident tan-bark must be used with caution. Perhaps there may be a difference between what I have used—what had undergone fermentation in pits and hot-houses—and what other persons may use fresh, from the tan-yard, but surely if there is a danger with either, I should consider the greater with the latter; it being used in a rank state. Yours respectfully, JOHN SAUL. *Washington, D. C., April* 16, 1852.

[We quite agree with Mr. SAUL as to any practical value of tan-bark as a *manure*. To nearly all plants it is no doubt injurious—especially if fresh—though possibly it may be beneficial to strawberries if spread lightly over the beds.

But as a *mulcher*, to keep the soil cool and moist in this sunny climate, tan-bark is a most invaluable substance for almost every tree or plant that needs such protection. As a winter protection against cold we have found it equally serviceable—especially if kept dry by a coating of straw or boards to shed the rain. While therefore, we doubt its value as a fertilizer, generally, and are confident if brought in contact with the roots of many plants, it is injurious, we look upon it as of exceeding value as a protection against the excesses of our climate in all cases where such is necessary. ED.]

A WORD FOR THE CACTI.—I feel very much inclined to take up the cudgels against your correspondent "WORKING GARDENER," in behalf of that exceedingly beautiful and much abused order of plants, the Cacti.

I do not care for the jealousies of "practicals" or "amateurs," with regard to the silver medal; it is true that practical gardeners have not attended to the cultivation of these plants, because, with the exception of the winter flowering *Epiphyllum truncatum*, and its varieties, they cannot be used in bouquets, nor is the taste for them sufficiently general to allow of their being cultivated for sale; consequently they do not *pay*.

In this neighborhood, I know but one "practical" who cultivates them for the "love of them." All honor to him for it.

There are certainly five or six collections in this county, which might contend for the silver medal in question, and Mr. Working Gardener is mistaken in supposing that the course would be "walked over," as I think I know at least two collections from which better selections could be made of "twenty best grown species," than from that of the practical he alludes to.

As for having twenty species in flower at once, I dont see why that should present any difficulty; I could furnish a dozen in flower in an hour or two, without going to any large collection. I will have in flower in a week or two, *Cereus speciosissimus, C. Jenkinsonii, Scottii, flagelliformis, Grahamii*, and *Mamillaria uncinata*, yet my Cacti do not exceed fifteen specimens of all kinds.

Depend upon it, Mr. Editor, a horticultural society is as right in bestowing prizes on an order of plants, the extreme beauty of whose

flowers no one will question, as on any class of florist's flowers which may happen to be in fashion. I know that it is the fashion at present to "snub" Cacti, but the fashion may change, when we shall hear working gardeners talk as learnedly about *Cerei Epiphylla, and Phyllocacti*, as they now do about Fuchsias, Cinerarias, Pansies and Chrysanthema, for, as Mr. Buist says in his last edition, "the time is not far distant when this family will be successfully cultivated in every parlor window, and the whole tribe will be sought for with more avidity than any other class of plants that have ever been brought into notice, not even excepting the *Rose*."

Wishing Mr. Working Gardener more taste, I remain, Mr. Editor, your ob't servant, A Philadelphia Amateur.

The Winter in Georgia.—As you desire accounts of the effects of the last extreme cold winter, from all sections of the country, I will briefly report what injuries we have sustained.

In the coldest day of an ordinary winter, the mercury with us descends generally as low as 12 or 10° Fahrenheit, frequently to 8°, and occasionally to 6°, which we consider *extreme cold*.

This year, after a mild damp day, on the 18th of Jan. the mercury suddenly fell during the night, to 16 on the morning of the 19th, and growing still colder, the mercury stood at sunrise on the morning of the 20th, at two degrees *below* zero. During the rest of the week at sunrise, it generally ranged at 12 and 15°, and we had thus the very unusual pleasure of almost an entire week of excellent skating, in the middle of Georgia!

Of our ornamental plants, Newtona Japonica was killed to the ground. This usually needs no protection. The Cape Jasmine, usually requiring only a slight protection of evergreen boughs, is, in spite of its usual protection, in the same condition. The Roman Myrtle, usually hardy, is in the same state, and the Chromatella Rose, has, in some instances, also been killed. All of the above are, however, sending up fresh shoots from the root. Cedar of Goa, which, like the above named plants, has survived our winters for several years past, is now killed utterly. Dahlias, which generally winter well in the open ground, are nearly all destroyed. Even those which were taken up and stored, did not generally escape, our rooms and green-houses not being prepared to sustain such excessive cold.

In the fruit garden the Pomegranate is not hurt. But fig trees of all kinds are killed to the ground, except some very large trees of the Celestial Fig, which are throwing out fresh shoots from the main branches. All the limbs less than about two inches in diameter, on these, are killed, and the main trunk seriously split by the violence of the frost.

In the kitchen garden, the English Pea, planted in December, which usually survives our severest cold, was killed entirely. Below us, where the mercury fell to 2° above zero, I learn they survived. So the cold that is fatal to the garden pea, is somewhere between 2° above and 2° below the zero of Fahrenheit.

I enclose you a few seeds of the "Quill Melon," which we think superior to the Rock, and the best yellow fleshed melon we have tried. If in your climate, it should prove as good, I think you will be pleased with it. It is nearly as good as the green fleshed melon; of a very singular shape; quite large, and exceedingly productive. Yours very truly, Wm. N. White. *Athens, Geo., April* 15, 1852.

The Winter in Northern New-York.—In compliance with your request, in the April number of the Horticulturist, I send an account of the effects of the past winter on our fruit buds. The winter although long and cold, was exceeded by that of 1835–36, both in amount of snow and cold, the thermometer being a number of times 18° and 20° below zero. Bearing quince and peach trees were killed, although there was no frost in the ground, and the snow four to five feet deep. The plum buds were killed. During the past winter the falls of snow were light, at no time exceeding nine or ten inches. The thermometer in our garden, protected on the east and north by buildings, stood at daylight, on 17th December, 6° below zero, 2° below on 26th, 10° below on 27th. On 20th January 6° below, 22d 11° below, 23d 3° below. In the outskirts of the city, and on College Hill, at 18° below on the 22d. In our city gardens the plum buds are partly killed; peach and fine cherries, all killed; Morello and common cherry, partly killed. At

my father's farm, a little N.E. from the College, the peach, cherry and plum buds are all killed. The varieties of plum are Egg, Green Gage, Washington, Jefferson, Columbia, Coe's Golden Drop, Huling's Superb, Frost Gage, Coe's Late Red, &c. Cherries, Elton, Black Tartarian, Bigarreau, Mayduke, Knight, Early Black, Downton, Downer's Late, Black Eagle, Bigarreau Coleur d' Chair, Belle d' Choisy, Coe's Transparent. Dubois' Early Apricot, also killed. The farm is about half a mile east of the Mohawk, and about a hundred feet above it, sloping to the west; soil stiff clay with plenty of slate stone, partly underdrained. Some years ago I became satisfied that our tender fruit buds were not only injured by the severe cold of winter, but also by the sudden thawing after hard frost. As a general rule after a very cold night, we have a bright sun in the morning till 10 or 11 o'clock, when it becomes cloudy. I have observed here and there in our city gardens, a peach tree, protected by some building from the morning sun till 10 or 11 o'clock, which will blossom and bear some fruit, when the buds of trees exposed to early sun were killed. It is so this year. Yesterday I examined the buds of an early Nectarine, in our garden, and a peach in the garden of a friend, (both protected,) and they were sound, while on exposed trees they are killed. A few years since, in the early part of September, I visited one of the Shaker families, about nine miles east of us, in Watervliet, and their peach orchard had an abundance of fine fruit, although the thermometer, the previous winter, was down to 8° or 10° below zero, and our buds were killed. The trees were on the *west* side of a hill, just high enough to shield them from the sun till 10 or 11 o'clock; soil sand. I have kept a record of the weather for more than 20 years, and find that when we have the thermometer a little below zero, say two or three degrees in the early part of December, it is more fatal than 10° below zero in February, if the cold has not been so great previously. This year our buds were killed in December.

In a nursery near our farm, soil similar, the only variety of pear injured is the Bartlett, very badly, though the previous winter did not injure them at all. Yours truly, CHARLES H. TOMLINSON. *Schenectady, April 5*, 1852.

CHERRY TREES DESTROYED BY INSECTS.—An inqury made by Mr. JOHN WATERS, of New-Milford, respecting an insect which destroyed his young grafts, reminds me of something that I should have made public before this.

For several years back I have been perplexed and annoyed by the appearance of my young cherry trees in the early part of summer; for on the sprining of the sap they would appear strong and healthy, and seem to promise an early and vigorous growth; but as the buds unfolded themselves, they would begin to shrivel and to lose force, and after struggling for a few days or weeks, would finally drop off entirely.

For a long time, I supposed it to be the effect of our very cold winters, and had almost abandoned the hope of rearing the finer varieties in these parts; but as there was occasionally a tree that did not show any such signs, although equally exposed to the weather, and would thrive exceedingly, I was led to believe it to be the work of some insect or animal, which had not yet been described as a tree destroying thing.

I was soon convinced that it did not commit its depredations in the day-time, for I watched closely for sometime, without discovering anything, and yet the trees continued their sickly appearance; but on watching by night, I readily discovered that the young leaves were eaten as fast as they shot out, by an enormous beetle-bug, that only gnawed by night. I also discovered that these same beetles rose from the ground immediately under the branches of the trees; and by further examination by day-light, I found that there were from one to fifty of these bugs under every tree, either in the mulching or in the mellow soil. Now, after having made this, (to me,) very important discovery, I proceeded at once and deliberately, to knock each one of these malicious beetles on their heads, until their jaws were broken, and they were thus incapacitated for doing any further injury to the cherry trees. My trees at once began to assume a fine foliage and to renew their health, and since then I have had no difficulty in giving them an early start.

My practice is now to visit each one of my *small* cherry trees, two or three times a week during the first weeks of their annual growth, and to *hoe* them carefully. In this way I keep a fine nest for the bugs directly around the trees, which they greatly prefer to any more distant, and then I can, as I hoe, pick them out and cripple them at my leisure. Now I am quite confident that Mr. Water's trouble is occasioned by this same great beetle, which is very common in this whole country.

It is a bug about three-fourths of an inch in length, of a dark red color, and with a small black head. It is commonly noticed when it gets into the house on a fine May or June morning—when, after having made a desperate pass at the nearest candle or lamp, it brings up against the opposing wall, and with scrambling vain efforts to regain its lost equilibrium, precipitates itself, sprawling, upon the floor. But

seriously, the effects of this beetle upon my trees, before I found out its practice of eating the young leaves, was very pernicious. At least one tree in ten was destroyed; and those they did not destroy, they rendered spare and gaunt in their forms. Wm. R. Manly. *Newport, Herkimer Co., N. Y., Feb.*, 1852.—*Cult.*

The Fruit.—We regret to learn from Mr. Ernst that most of the fruit, cherries, peaches, apples and pears, which had escaped the extreme cold of the past winter, have been carried away by the recent and unexpected visitations of Jack Frost. The warm weather immediately previous to the recent cold had tempted most of the fruit trees and flowers into leaf, and the buds of fruit had swollen so that frost, having a fair chance, has captured the entire lot. We shall have to give up for another year, hope of fruit. The loss of two successive seasons will prove a loss severely to be felt by farmers and horticulturists, and must be estimated at several millions of dollars. We have accounts from a great many sections of the east and west, and all have suffered severely. In some places, entire orchards of fruits, which have just come into bearing, have been destroyed.—*Cin. Gazette.*

Statistics of Vineyards.—In accordance with a resolution of the Horticultural Society of Cincinnati, passed at its last session, calling on the President and Council to report on the extent of the interest at this time engaged in the wine business in the neighborhood of Cincinnati, we submit the following report:

Of the number of acres now under cultivation in vines, we are not, as yet, prepared to give an exact account, as the entire statistics of the county have not been fully made out since 1845. In that year there were eighty-three vineyards, covering an area of three hundred and fifty acres. In that year alone one hundred acres were prepared and planted, and the number of acres brought under cultivation has been steadily and rapidly increasing every year since. The great number of new vineyards commenced since 1845, some of which embrace twenty-five to thirty acres, with the annual enlargement of those previously planted, will swell the aggregate amount to not less than twelve hundred acres. From the statistics already in our possession, we can safely say that this is within the actual amount.

The labor bestowed upon this culture in the preparation of the ground, planting and dressing, and making the wine, gives employment to at least six hundred efficient laborers, at an annual cost of $120,000, producing when in a bearing state, in moderately favorable seasons, about 240,000 gallons of wine, estimated at about the same number of dollars Beside the cultivators and wine dressers, employment is also given to wood coopers, equal to the making of 8,000 barrels, estimated at $8,000.

A considerable portion of this crop now falls into the hands of the wine coopers, and is converted into sparkling wine or champaign, thereby more than doubling its market price. The value of sparkling wine prepared in this county in 1851, as near as we can arrive at an estimate, amounts to not less than $75,000. The dealing in these wines also forms a considerable item in the transactions of the wine merchants.

As most of those engaged in the culture of the vine have families to support, as well as others engaged in the business, it may, without exaggeration, be calculated that the wine interest in Hamilton county, affords subsistence, directly, or indirectly, to at least 2,000 industrious and sober people—a drunken vine-dresser we have never met with. S. Mosher, Pres. Hort. Soc. *Cincinnati, March* 15, 1852.

Black Knot on Plum Trees.—There has been much speculation and research for the cause of the black knot on plum trees. Some persons have supposed it caused by an insect. Some years ago I opened the knot and examined it, but did not discover any appearance of an insect, nor the eggs of one. So far as I know, it has not been satisfactorily learned what causes the knot.

The gardens of my adjoining neighbors are full of plum trees. All the trees are filled with the black knot, so as to appear as if a flock of small birds had lighted on the branches. Some years ago, I advised the owners to cut off the knots so soon as they appeared, or they would lose the trees—they thought best to leave them to the course of nature. The second and third set of their trees are now in the condition I have described, while my trees are free from knots. I have always looked for knots when in the garden, and when one appeared, I cut it off at any season, whether it was loaded with fruit or not. The trees soon put out other shoots, which filled out the place of the limb cut off, and my trees are in full size, as if no limb had been cut off, and there is not a knot to be seen on them. From this treatment, I am of opinion, that if a knot is suffered to remain on a limb, the disease soon spreads, like a canker, and fills the whole tree, as it has the trees of my neighbors. It is a misconception, that when a tree is set, it does not require further treatment. D. Tomlinson. *Cultivator.*

Osage Orange Hedge.—My laltitude is 41° 35' north. The past winter has been one of intense severity. The plant above has been represented as semi-hardy, and some anxiety as to its efficiency as a hedge plant in this latitude, manifested. My hedge is now in its fourth spring, (if spring it can be called,)—quite a proportion of the last season's growth reached four feet in height. Its length is some three hundred feet. Not a plant shows any indication of injury, from any cause whatever,

since setting, and a more luxuriant, efficient, and beautiful hedge, I have not yet seen. JABEZ DELANO. *Fairhaven, Mass. April* 16, 1852.

PENN. HORT. SOCIETY.—The stated meeting was held on 20th April, Dr. W. D. Brinckle, Vice Pres't., in the chair. The exhibition was very fine. The long tables through the center of the saloon contained many interesting plants, and a number shown for the first time. In Robert Buist's collection, were the Campanula nobilis alba, a handsome plant; Arbutus nepalensis in full bloom; Epacris hyacinthiflora; auricula morning star, new and of recent introduction—two remarkably fine seedling Verbenas; Pimelia spectabilis, throwing up innumerable stems from the root, each bearing a compact umbel of delicate flowers, a plant worthy of admiration,and other beautiful specimens. From C. Cope's houses, a variety of choice plants, a cut flower of the Victoria regia, a moss covered urn and basket containing select cut flowers—also a basket of strawberries, a dish of grapes and another of mushrooms. From Robert Cornelius's garden, were a fine collection of everblooming roses, another of pansies and well grown forced vegetables—comprising one dozen of cucumbers, half a dozen of cauliflowers, four varieties of lettuce, six kinds of radishes, early peas and beans in the pod, asparagus, etc. C. Sheets exhibited a table of roses; James Powell, choice pansies; Joseph Ripka's gardener, a large specimen of Rhododendron Russellianum, a hand bouquet and a dish of mushrooms. John Sherwood presented a seedling Rhododendron, hybridised with Azalea Sinensis, partially evergreen, bearing clusters of orange colored blossoms. From Charles Horton of the state of Maine, superior Baldwin apples.

The conclusion of R. R. Scott's dissertation on the merits of the natural system of Botany over the Linnean.

On motion, ordered that a committee of five be appointed to inspect all the gardens, private and commercial, in the neighborhood of this city, and within the influence of this Society, and report thereon.

The Prospectus of a new Horticultural Journal called the "Philadelphia Florist," of which R. Robinson Scott is editor and proprietor, was submitted.

A letter from Prof. S. S. Haldeman, in acknowledgment for his appointment to the chair of Entomology, was read.

On motion, ordered that a vote of thanks be tendered to Capt. McMichael for a package of flower seeds from California. THOS. P. JAMES, Rec. Secretary.

BUFFALO HORT. SOCIETY.—*Jan.* 20.—The Society met at Lewis Eaton's—The President in the Chair.

Fruits exhibited.—By Lewis Eaton—Apples: Balwin, Eaton.

By Mrs. Vandewater; two varieties for a name.

The committee appointed to publish the Transactions of the Society for the past year, reported progress.

After a discussion of the apples presented, and on various other subjects, the Society adjourned.

Feb. 17. Met at Benjamin Hodge's—Vice-President Taintor in the Chair.

Fruits Exhibited.—By Benj. Hodge—Apples: American Golden Russet, Beauty of Kent, Brabant Bellfleur, Carthouse, Esopus Spitzenburgh, English Russet, King, Lymans Pumpkin Sweet, Lady, Minister, Michael Henry Pippin, Pownal Spitzerburgh, Roxbury Russet, Swaar, Westfield Seek-no-farther. *Pears:* Glout Morceau, Pound.

By W. R. Coppock—Apples: Yellow Newtown Pippin, Sweet Pearmain, Swaar, Northern Spy, Crow's Nest Russet.

By L. F. Allen—Apples: Ladies' Sweet, Spencer.

By W. Granger—Apples: Baldwin, Northern Spy, Swaar.

The following were tested and discussed—Apples: Ladies' Sweet, American Golden Russet, Northern Spy, Sweet Pearmain, Minister, King, Newton Pippin, Spencer, Carthouse, Westfield Seek-no-farther, Brabant Bellfleuer. Pears: Glout Morceau.

The committee on the library reported a list of works which had been purchased for the use of the Society.

W. R. Coppock stated that Messrs. Mason and Lovering had tendered to the Society the gratuitous use of a room for the purpose of holding the semi-monthly meetings, whereupon, on his motion, their offer was accepted, and the thanks of the Society unanimously voted to them therefor.

March 3.—The Society met at Lewis F. Allen's—The President in the Chair.

Fruits exhibited.—By L. F. Allen—Pears: Easter Beurre, very fine, from Ellwanger and Barry, of Rochester.

By B. Hodge—Apples: Fallwater, Jonathan, Fameuse, Lovett's Sweet.

By W. Granger—Apples: Esopus Spitzenberg, Swaar, Baldwin, Roxbury Russet.

By L. Eaton—Apples: Baldwin.

The following were tested and discussed—Pears: Easter Beurre. Apples: Fameuse, Jonathan, Baldwin, Swaar.

March 16—The Society met at the residence of the President, A. Bryant, who presided.

Fruits exhibited.—By A. Bryant & Son—Apples: Baldwin, Esopus Spitzenberg, Westfield Seek-no-farther, Lady, Fameuse, Talman Sweet, Rhode Island Greening, Golden Russet, Pomme Gris, Winesap.

By B. Hodge—Northern Spy, Swaar, Brabant Bellfleuer, Lyman's Pumpkin Sweet.

By L. Eaton—Baldwin.

The Osage Orange was stated to be but

slightly injured by the winter, and its fitness for a hedge plant was generally admitted.

The following pears were discussed: French Jargonelle, Louise Bonne de Jersey, Steven's Genesee, V. M. Leon le Clerc, Duchess de Angouleme, Winter Nells, and Orange.

On motion of W. R. Coppock, a vote was passed recommending to the public Messrs. Mason & Lovering's Agricultural Warehouse, which was ordered to be published.

The Society then adjourned. Jno. B. Eaton, Recording Secretary.

New-Haven Hort. Society.—We sometimes find it matter of convenience to know the names of officers of sister societies, as we find them in the Horticulturist. Possibly it may be equally interesting to some to know the names of officers of our society, through the same medium. If convenient you will please use the following:

At the annual meeting of the New-Haven County Horticultural Society, held at the office of Chas. Robinson, Esq., the 17th inst. James Harrison, Eleazer E. Clarke, S. I. Baldwin, John J. Walter, N. A. Bacon, Carlton White, Charles Beers, T. H. Totten, and Jonathan Stoddard, were chosen Directors for the current year.

At a meeting of the Directors, held on the following Monday, at the same place,

Charles Robinson, Esq., was re-elected President.

S. D. Pardee, Esq., 1st Vice President.
C. B. Sims, Esq., 2d do.
George Gabriel, Secretary.
E. H. Bishop, M. D., Cor. Secretary.
Wm. Johnson, Esq., Treasurer.

These together constitute the board for transacting the business of the Society. George Gabriel, Sec'y. *New-Haven, March* 23, 1852.

Detroit Hort. Society.—At the annual meeting of the Detroit Hort. Society just held, the following persons were elected officers for the present year:

President—A. C. Hubbard.
Vice Presidents—Thos. Lockwood and F. Raymond.
Treasurer—Stephen Smith.
Rec. Secretary—Chas. Betts.
Cor. Secretary—Bela Hubbard.

The Society has now effected a substantial and we trust a permanent organization. An excellent room has been secured for the exhibitions of the Society, the present season; and every effort will be made to make them interesting and instructive.

The advantages of having an energetic Horticultural Society are too obvious to remain unnoticed. Practical men believe now, that fruit growing, taken all-in-all, is one of the most profitable and pleasurable departments of husbandry. Every body is planting trees; nurseries are springing up in every part of the State; yet they each sell double the number of trees that either did three or four years ago. Our trees first planted are coming into bearing, and the fine character of the fruit gives great encouragement to extend operations. And a Horticultural Society now is the result of bare necessity.

Persons in all parts of the State are solicited to become members. Any person by sending one dollar to either of the officers, will be elected a member of the Society, and it is really to be hoped that those who are engaged in fruit growing, and feel an interest in the dissemination of correct knowledge in reference to culture, adaptation of varieties to our climate and soil, the proper naming of fruits, which are now propagated under false or erroneous names, which causes perplexity, trouble and loss, &c., will take hold and help the matter on.

The Society have decided to hold five exhibitions the present season; one in each of the months of May to September inclusive. Due notice will be given of the time of holding the exhibitions, and persons will be appointed to receive fruit, &c., sent from a distance where members cannot make it expedient to attend personally.—*Michigan Farmer.*

Columbus, (O.) Hort. Society.—This society was organised for the present year by electing the following officers and committees:

President—John Miller.
1st Vice-President—Lucien Buttles.
2d Vice-President—Benjamin Blake.
Treasurer—Adam Sites.
Cor. Sec.—Henry C. Noble.
Recording Sec.—Geo. B. Comstock.

Council.—The President and Treasurer *ex-officio*, and Messrs. A. E. Glenn, John Burr, and F. Stewart.

Garden Committee—Dr. I. C. Jones for five years; Benj. Blake four years; Lucien Buttles three years; Robert Hume Jr., two years and John Miller one year.

Answers to Correspondents.

Rose Shrubs.—*Filius*, (Toronto.) *Viburnum Opulus-roseum*—the rose colored variety of the common Snow Ball, about which you inquire, we do not remember to have seen. If any of our nurserymen have cultivated it, we will be glad to hear from them. We do not understand your inquiry about cutting apple "stocks" into two or three pieces? Do you mean grafts? If so, every portion of a good young shoot, with three buds, will make a good graft.

Books.—*O.* (Newbury, S. C.) Consult Barry's Fruit Garden, and our Fruits and Fruit Trees of America. The other books most desirable for you are, Mrs. Loudon's Flower Gar-

dening for Ladies, Lindley's Horticulture, Loudon's Suburban Horticulturist, Paxton's Botanical Dictionary, and Loudon's Encyclopedia of Gardening.

Grafts.—*Ibid.* Nurserymen usually send grafts of rare fruits, at the price of a tree for a dozen grafts: more common sorts at much lower rates by the quantity. *John Jones.*—The grafts of the grape-vine should be kept in a cellar till the leaves of the stocks are bursting—then grafted. In this way they take very readily.

Evergreen Screens.—*O. V.*, (Syracuse, N. Y.) Nothing would be more suitable for a screen for the purpose you mention, than evergreens—especially a mingling of the following sorts: Norway Spruce, Hemlock, American Arbor Vitæ, with an occasional White Pine, Scotch Pine, and Balsam Fir. Do not plant them too thick—or if so planted, thin them out before the branches touch—otherwise you will lose much of the beauty of the trees.

Glass Pipes.—*C. W. Wever.* Glass pipes for conveying water, can, we imagine, be had of Allen & Co., Agricultural Warehouse, N. Y. The cost we do not know.

Lawns.—*A Lady*, (New-London, Conn.) Plant your lawn with a mixture of the following grass seeds, at the rate of three bushels to the acre, viz: one and a quarter bushels red-top, one and a quarter bushels blue grass, four quarts of white clover. This will make a thick lawn in 10 or 12 weeks.

Cut-worm.—*James.* Sow the ground with coarse salt—three bushels to the acre, before you turn it over with the spade. This will destroy the grubs and benefit the crops.

Currants.—*M. R.* (Utica) No shrub shows the good effects of high manuring so completely as the currant. If you wish to get very large fruit, *train* the bushes on the north side of a trellis, and feed the roots well with half rotted stable manure.

Melons.—*A. B.*, (Trenton.) The earliest by far is the Christiana—a Boston variety—full ten days before the green fleshed sorts. The green fleshed Citron and the Beechwood, are two of the highest flavored sorts. The Mountain Sweet is the best water melon.

Peach Worm.—*A Constant Reader*, (Pittsburgh.) Take away the ground three inches deep at the base of the trunk, around all your peach trees; if you see gum, the grub is then at work—follow and take it out with the knife. Pouring a pail of boiling water at the base answers the same purpose. It is a good plan to heap a small hill of leached ashes around the trunk, to keep the insects away.

Stunted Trees.—*S. Johnson.* Most probably your orchard was planted too deep. Loosen the soil well with the spade, and if the ground is heavy, dig in a mixture of stable manure and hard coal ashes. Head back the ends of all the shoots to make the trees throw out new ones, and wash over the trunks with thick soap suds—or rather soft-soap and water.

Summer Bulbs.—*A Working Lady Gardener*, (Staten Island, N. Y.) The best bulbs for blooming in the borders in summer, are the following: Mexican Tiger flowers, (two colors,) Tuberoses, *Gladiolus floribundus, roseus, gandavensis, formossissima*, and several other Ghent varieties; *Amaryillis, Johnsonia* and *formossissima, Crocus autumnalis, Oxalis Boweii, Lilium Japonicum* and *speciosum*. The latter should be planted in a shady sheltered border. The others only require a rich sandy loam—the manure either poudrette or very rotton stable manure—the former the best—and a sunny open border. Plant all of these as soon as possible, before the middle of May.

English National School House.